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INSIDE DOPE

by GEORGE F. TAUBENECK

How We Got Where We Are
Proof of the Pudding
The American Cancer
History Repeats
Russia vs. U. S.

How We Got Where We Are

Our republic developed from a philosophy which contemplated maximum, individual freedom from restrictive influences. The environment and incentives which were engendered and maintained under that freedom brought about the most highly productive cooperation among the various elements in our social and economic structure. An ingenious, energetic, free people developed a remarkable but essentially simple economic formula, under which productive efficiency increased with great rapidity.

The following summary, which covers a 90-year period, is interesting and significant:

Year	Invest- ment Per Plant	Invest- ment Per Worker	Hp. Per Worker	Annual Wages Per Worker
1849	\$ 4,000	\$ 500	little	\$ 248
1879	10,000	1,000	1.3	346
1909	70,000	3,000	2.9	510
1939	270,000	6,000	6.4	1,150

American inventive genius, untrammelled and stimulated by compelling incentives, developed an ever-increasing wealth of new and desirable products and constantly improved techniques of production. The limited physical power of human beings was augmented and multiplied by mechanical power. Surpluses, or profits, made possible greatly increased investments in the tools and facilities of production. Management combined these tools and facilities with effectively organized and supervised groups of men and women to attain maximum effectiveness in production.

Proof of the Pudding

Rich benefits have flowed from this system to all of our varied social groups. Said process has been so effective that we are the most envied people of the world. England, Russia, India, and other lesser lands all study and attempt to emulate our productive efficiency. But too often our neighbors fail to understand the vital importance of the foundation of freedom and incentive which was our American heritage. The past tense is appropriate to this discussion because we, the people of the United States, have too generally forgotten or failed to understand those fundamental aspects of our American economy.

Gradually and almost imperceptibly the free and stimulating environment created by the founders of the republic has changed. Restrictive influences again throttle our freedom. Cooperation has been replaced by short-sighted, suicidal selfishness. Statesmanship is superseded by political expediency. National and state political administrations and legislatures slavishly serve powerful political blocs and neglect the broad public interest because we, the people, have degenerated and have caused them so to act.

Intolerable economic pressures, growing out of exaggerated group consciousness and suicidal group selfishness, have inflicted such intolerable oppression upon the people of Italy, Germany, and France that they have been driven to destruction.

The same foul diseases of exaggerated group consciousness and suicidal group selfishness have long afflicted this country. We are far gone down the road toward destruction. Symptoms identical with those

(Concluded on Page 12, Column 2)

Appliance Terms Called Likely To Be Longest

WASHINGTON, D. C. — When Regulation W. credit restrictions end on Nov. 1, or possibly earlier, observers here are looking for the biggest easing of terms to appear in the appliance field.

However, they indicate that there will be no return to the days when there was no down payment and several years to pay.

What some foresee are 10 to 20% down payments on refrigerators and ranges with 24 to 30 months to repay; 20 to 25% on home freezers with 18 to 24 months to repay; and 20% down payments with 18 months to repay on washers and ironers.

Certain financial sources indicate that they will scrutinize carefully credit paper on higher priced refrigerators and freezers, expecting that rapid improvements in design will discourage customers from paying up on "obsolete" models.

One source anticipated that department stores generally will ease their down payment requirements to 20%, though some, in a bid for customers, may require only a 10% down payment.

Repayment period is expected to remain fairly short, from 12 to 15 months. Where 18 to 24 months terms are offered, this source indicated, that the 24 months would be allowed only on merchandise involving installations, such as air conditioners and furnaces.

NFFLA Convention Outline Is Released

DES MOINES, Iowa—A brief outline of the program being prepared for the National Frozen Food Locker Association convention to be held in the Kansas City (Mo.) Municipal Auditorium Sept. 22 through 25 has been released by Albert Guggedahl, executive secretary of the association.

No speakers' names, details of the opening program Monday evening, Sept. 22, or of the morning sessions on the following three days were included in the outline.

Eight clinic sessions, however, have been arranged for the afternoons of those days. They will last from 2 to 4 p.m. and will cover meat cutting, packaging, slaughtering, smoking and curing, poultry processing, advertising, merchandising, and construction.

Attending delegates will be able to register throughout Monday, Mr.

(Concluded on Page 4, Column 3)

Mortality High on Old Units During August Heat Wave

DETROIT — With temperatures daily soaring beyond 90° F. last week, refrigeration servicemen here found themselves busy trying to cope with a record number of breakdowns in both domestic and commercial refrigerators.

The strain imposed on pre-war units by their many years of service aggravated by current high temperatures and high humidity was blamed.

One serviceman declared that it costs the customer an average of \$35 to have his unit completely reconditioned.

Other quoted charges were \$30 for motor replacement, \$35 for compressor replacement, \$12 for a thermostat, and \$4 for "tinkering."

Though air cooled refrigerators were the worst hit, water cooled units were adversely affected by the exceptionally low water pressure this year, it was said.

Law Requires Calif. Dairies Sell at List

New Regulations Seen as Putting Contractors on Par with Dairies

SAN FRANCISCO—Passage of a new state law in California virtually puts refrigeration contractors on the same level with dairy companies with respect to sales and maintenance of refrigeration equipment to retail outlets.

At least, that is the new law's apparent purpose, according to Z. E. Jones, secretary-manager of the Refrigeration Contractors Association of Northern California, who hints that the association was the instigator of this new law.

Effective Sept. 19, the new regulations prohibit the manufacturer or distributor of ice cream from selling any new equipment to customers at other than the equipment manufacturer's retail list price, and the terms must be the same as those recommended by the manufacturer of the equipment.

Conditional sales contracts on equipment sold to retailers, including refrigeration facilities, call for at least one-third down payment and a maximum of 18-month terms, with prices to include interest at current rates, installation, and maintenance for the life of the contract, according to the new law.

Rental of refrigeration equipment "reasonably necessary for the preservation of frozen products" is not prohibited, provided there is "reasonable compensation" which shall provide for interest on investment, reasonable depreciation, and cost of

(Concluded on Page 4, Column 4)

'Freon'-from-Bug-Bomb Deal Said To Be Off

WASHINGTON, D. C.—The offers of "Freon-12" refrigerant in big quantities at price of \$2 per pound and over, which were circulated around the country earlier this summer, have apparently been withdrawn.

A report from some government circles say that "the deal is off."

The report also substantiated the story carried in the July 14 issue of the NEWS which stated that those making the offer planned to obtain the "Freon" by buying up war surplus Aerosol "bug bombs" and reclaiming the "Freon" used in the bombs.

Tennessee Cities Record Big Appliance Sales Gain over Both 1946 and 1941

KNOXVILLE, Tenn. — Appliance customers in this area are buying larger electrical appliances and they are paying more for them than they did in 1941, sales figures gathered by the Knoxville Utility Board revealed recently.

Comparing the records of April and May in 1941 with the same two months in 1947, the Board discovered that, with the exception of washing machines, dealers in this area sold two to three times as many home appliances in 1941 than they did in 1947.

However, the figures showed, dollar volume this year is about 85% of what it was in 1941. The respective totals were \$433,783 this year and \$512,234 in 1941.

Commercial appliance sales, on the other hand, amounted to \$320,034 this year as compared with \$37,364 in 1941.

(Concluded on Page 29, Column 1)

NARC Breaks Off Negotiations with Steamfitters' Union

CLEVELAND — The National Association of Refrigeration Contractors suddenly announced it has abandoned efforts to work out a suggested model national labor agreement with the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry.

However, NARC said it will continue to recognize the AFL union as having jurisdiction in the refrigeration contracting industry. The association added that it will also continue to assist contractors whenever union or non-union labor problems arise.

"This decision was motivated in part by the fact that the two groups were still considerably apart in their ideas, even after three conferences in Chicago, Washington, D. C., and St. Louis," NARC explained, in announcing its new labor relations policy.

"Another factor is the new labor law. Some of its provisions will have to have court tests before employers and unions will know for certain just what their rights are."

The association pointed out that it has collected information from all parts of the country in order to aid contractors properly in labor relations.

"In rendering such assistance," NARC said, "it will endeavor to suggest the things that will bring about the best relations between employees and employers, because that is essential for sound industry progress."

NARC's statement did not indicate

(Concluded on Page 32, Column 1)

The Key To Air Conditioning

Air conditioning sales are starting to boom in a big way, and this means a big, profitable market for those who are prepared to cash in on it. Being "prepared" means having a thorough understanding of the fundamentals of air conditioning, especially knowing how to apply equipment for an efficient, practical, comfort cooling job.

You can obtain this "know-how" by reading *The Key to Air Conditioning*, a new series of articles just starting in the NEWS. The author, James J. LaSalvia, has been designing, engineering, and installing systems for many years. This week's instalment, the third, appears on page 22.

Backlog Easing On Some Items, CRMA Reports

Strict Allocation Basis Adopted by Additional Commercial Manufacturers

CHICAGO—With current production of commercial refrigeration equipment generally running ahead of last year's rate, back orders on some items should be filled within 60 to 90 days.

Members of the Commercial Refrigerator Manufacturers Association so agreed at a round-table discussion of basic industry conditions. The discussion took place during CRMA's recent two-day annual meeting held at the Edgewater Beach Hotel here.

Manufacturers reported that production is still being limited by the steel shortage, pointing out that their schedules depend entirely on ability to get the metal. Several said output has been slowed down in recent weeks by vacations and other factors.

Further discussion revealed that the practice of keeping paper backlogs is gradually being abandoned. More members told the gathering they are now operating on a strict allocation basis.

Dealer credit and the industry cost trend were two of the many other subjects considered during the meeting.

By the sale of goods on a cash basis and virtual elimination of commission salesmen, the industry has now arrived at the ideal distribution system, one member declared. He warned that a return to former methods would mean a return likewise to profit losses through price cutting, consignments, and poor credit.

Members see little or no chance for a downward trend in costs in the predictable future. The steady increase in costs during 1947 since the

(Concluded on Page 32, Column 1)

Robinson-Patman Act Repeal May Be Sought

WASHINGTON, D. C.—When Congress reconvenes it will be asked to repeal or amend the controversial Robinson-Patman Act, according to rumor currently making the rounds here.

This rumor—regarded by some as a "trial balloon" sent up by the legal department of the Federal Trade Commission—plus recent action in the Elizabeth Arden case, has led to speculation that the Government itself wants ambiguous parts of the act clarified. The FTC has borne most of the burden of enforcing the legislation.

Action in the Arden case was cancellation of a hearing on a motion to delay compliance to a FTC order prohibiting the firm's "unproportioned" use of demonstrators.

Commenting on these developments, one New York press report quoted trade leaders there as saying that "there never has been any question of industry's support of the theory of the act."

"The lengthy, inconclusive litigation over nearly 12 years of the act's existence have resulted purely from ambiguity in the language of the law, it was stated," this report said. "Under such circumstances, enforcement of the law rested on interpretations rather than lucid legal direction."

The report pointed out that while many industries are affected by the most-disputed feature of the act that pertaining to "proportioned"

(Concluded on Page 4, Column 3)

BUHRING SYSTEM Water Purifier

Guaranteed to remove all taste, color, odor and suspended matter in water, the BUHRING System Water Purifier delivers clean, palatable and sparkling water . . . retaining all its natural qualities. Adaptable to all water pressures from 10# upwards because the BUHRING Carbon Block can be supplied in a wide variety of densities, although it is advisable to reduce very high pressures for best results. Each unit consists of a pot with removable cover containing granulated activated carbon of different grains, asbestos, and a moulded Carbon Block.

Dealer territories are now available in N.Y., N.J. and Conn.

WATER CONDITIONING DIVISION

CONSOLIDATED CONDITIONING CORP.

26 WEST 47th STREET • NEW YORK 19, N. Y.

We Manufacture XL

'Freon' Compressors and Condensing Units (1 to 10 h.p.)

Ammonia Compressors 4x4 — 5x5 — 6x6

Ammonia Valves 1/4" to 5" Screwed and Flanged

ALSO

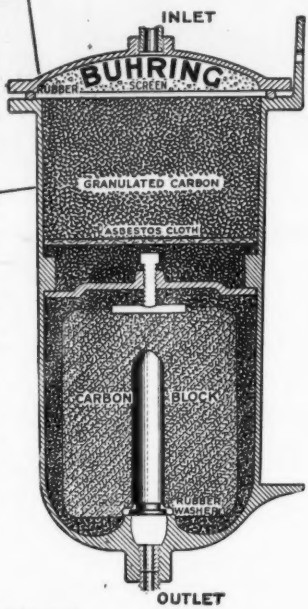
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AIRCRAFT PRODUCTION ENGINEERS

DIVISION OF
THE XL REFRIGERATING CO.

1834-42 WEST 59th STREET

CHICAGO 36, ILL.



Dealers Organize Tracer System for Stolen Goods

SPOKANE, Wash.—A stolen merchandise tracer service has been inaugurated by the Inland Empire Electrical Dealers Association, it was announced here.

The new service will provide members with a penny postcard report giving type, brand, model, and serial number of any goods stolen from a member store and with cumulative monthly lists of all non-recovered merchandise, association officials said.

Members are requested to post the information where it is available to all employees who may see second hand merchandise offered for sale, for trade-in, or for servicing.

If stolen merchandise is discovered, members are asked to detain the suspect without arousing suspicion and call the police. The member is further asked to notify the association of the recovery.

"With prompt reporting and alertness in checking used articles which come into your store you will greatly assist your police department in protecting your merchandise," association officials told the membership.

They Sell on Main St.

MT. OLIVER, Pa.—Howard Refrigeration Service Co. has boosted sales of reconditioned boxes one-third by moving six blocks onto the main avenue where there is space for a showroom.

Company moved just two weeks after purchasing the business which hitherto featured service, which is continued at the new location.

Prospects Can Watch Washer Clean Clothes



To give prospects quick visual proof that the Bendix automatic washer removes dirt from clothes, Fred Norton, utility serviceman, developed the sight glass for the waste water line which he is demonstrating here. Watching the successive rinse waters change from dirty to clear readily convinces customers, says F. H. Elvig, general commercial manager for Kansas Electric Power Co.

Few N. Y. Delicatessens Found Satisfactory

NEW YORK CITY—An investigation launched by City Health Commissioner Israel Weinstein into lack of proper refrigeration and sanitation in delicatessens has revealed that only 95 out of the 487 stores inspected were in "satisfactory condition."

Three hundred and ninety two owners have been warned to correct unsanitary conditions or face court action, Dr. Weinstein said.

Dr. Weinstein stated that he had given delicatessen proprietors ample notice of the "crack down" to enforce city sanitation laws. He had also warned them that salads, hams, and smoked fish, if not properly prepared and kept under refrigeration, can cause intestinal disorders.

In four days of the drive, 1,813 lbs. of food was found unfit for human consumption, Dr. Weinstein declared.

Concurrently with the drive on delicatessens, Commissioner Weinstein's inspectors dropped in on 250 Manhattan bars and grills and issued warnings to 150 on sterilizing their glassware.

The commissioner's agents pointed out that glasses must be both washed in hot water and soap and sterilized in clean hot water.

Statter Wins Promotion With Commercial Credit

BALTIMORE—The promotion of D. E. Statter to senior vice president of Commercial Credit Corp. in charge of the southern territory which includes the Baltimore, Greensboro, Charlotte, Atlanta, Miami, and Jacksonville divisions has been announced by W. Bruce Wylie, vice president in charge of sales and operations.

Mr. Statter, who is being advanced from vice president and divisional manager in Philadelphia, for many years represented the corporation in the southern states.

Promoted to vice president and divisional manager at Philadelphia is Robert A. Caldwell, Jr., who has been with Commercial Credit since 1928.

Koch Vacations To Shut Plant Aug. 15-Sept. 2

NORTH KANSAS CITY, Mo.—The Koch Refrigerators factory here will shut down for vacation from Aug. 15 to Sept. 2, the company has announced.

During that period, a skeleton office staff will be on duty. No shipments of any kind will be made.

Regular shipments of supplies for packers, locker plants, etc., will continue, however, the firm added.

Ansley Takes NERA Post

WASHINGTON, D. C.—A. Joseph Ansley, 44 Buswell St., Boston, has been appointed field director for the National Electrical Retailers Association in the New England states, according to C. C. Simpson, managing director, Washington, D. C.

Mr. Ansley has been associated with the electrical appliance industry in Boston and New England for the past 25 years in various capacities with both retailing and wholesaling establishments.

Sight Glass Shows That Washer Removes Dirt

KANSAS CITY, Mo.—Through a sight glass assembly made by Fred Norton, serviceman for The Kansas Electric Power Co.'s office at Parsons, prospective purchasers of the Bendix automatic washer can see the dirty wash water as it flows to the drain and note that successive rinse waters become clearer.

The utility is "encouraging interested prospects to bring in their clothes to be washed," says F. H. Elvig, general commercial manager. "This gadget is Mr. Norton's answer to customers who question whether or not the Bendix washes clothes clean. The unit certainly does prove the story that it does."

The sight glass assembly includes two steel plates 3 1/2 x 3 1/2 x 1/8 in. thick, two male garden hose connectors, four 3/16 x 4 1/2 in. bolts, one cylinder of heat-treated glass 2 in. in diameter by 3 1/2 in. long and 1/8 in. red rubber to make two gaskets, 2 3/4 in. diameter.

The male hose connectors have the hose end section sawed off and are brazed over 1/8 in. holes cut in the center of the steel plates. The glass is sandwiched, with the gaskets, between the plates, and the four 3/16 x 4 1/2 in. bolts are installed to clamp the assembly water tight.

An inverted L-shaped bracket is fastened under a cabinet screw on the back of the Bendix and the sight glass is mounted by means of two 3/16 in. nuts. The drain hose from the Bendix is connected to the top of the sight glass and a second hose connects the bottom of the sight glass to the drain.

Griebenow Named Head Of Seeger Manufacturing

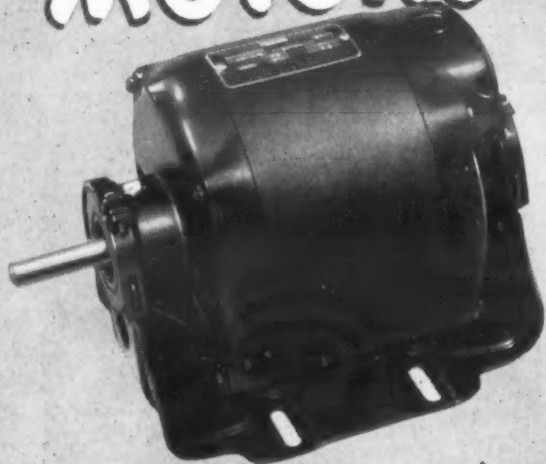
ST. PAUL, Minn.—N. H. Griebenow has been named vice president in charge of manufacturing at both the St. Paul and Evansville, Ind. divisions of the Seeger Refrigerator Co., Walter G. Seeger, president, has announced.

At the same time, Mr. Seeger announced the appointments of L. K. Sosey as works manager and J. W. Seeger as superintendent of the St. Paul division.

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turn a shaft
this way



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Power America's
Leading Appliances



BUT IF YOU WANT TO SHARPEN SALES

In the days of highly competitive selling that lie ahead, appliances powered by smooth-running, dependable Delco motors will show the way. For here are motors that have proved their mettle on America's leading refrigerators, washers, ironers, stokers, oil burners and air conditioners. They have won nationwide acceptance for the Delco name, industry-wide recognition for Delco engineering. Built to meet specific torque and service requirements, in sizes from 1/8 h.p. to 50 h.p., Delco motors help turn sales wherever they turn shafts. Delco Products Division, General Motors Corporation, Dayton, Ohio.

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Jarrow...
Refrigerator Door Gaskets
Are Again Made From
Crude Rubber
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ACCORDING TO THE NATIONAL INDUSTRIAL
CONFERENCE SURVEY, LITTLE IF ANY PRICE REDUCTIONS IN
COMMERCIAL REFRIGERATION EQUIPMENT CAN BE EXPECTED
THIS YEAR. THERE MAY EVEN BE PRICE INCREASES.
TRUE OR FALSE, INSTALMENT BUYERS WILL STILL
CONSTITUTE THE MAJOR MARKETS AND THE NEW
COMMERCIAL CREDIT PLAN OF FINANCING IS YOUR
BEST BET FOR CLOSING SALES AND NETTING PROFITS.
GET THE FACTS ABOUT THE CHANGES AND IMPROVEMENTS
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Where's the Best Spot To Sell Frozen Foods?



This "Spot Special" frozen food cabinet on wheels, made by Refrigeration Corp. of America, is now undergoing tests to determine the best location at the Grand Union supermarkets in New York City and Pittsfield, Mass.

June Sales of Water Heaters Equal Utility's Pre-war Years

RICHMOND, Va.—Installations of 894 off-peak electric storage water heaters, formerly considered a good year's business, were made during June in the area served by the Virginia Electric and Power Co., the utility has announced.

The territory, located in southeastern Virginia and a few counties in northern North Carolina, now has a total of 15,761 users of such heaters, a statement by the utility disclosed.

Doctor Installs Cooling In His 'Rolling Clinic'

ST. LOUIS — Dr. Glendon T. Morse, general practice physician who spends most of his medical career in small villages and hamlets of the Ozark Mountains, has installed two ¾-ton package air conditioners in the 26-foot trailer which serves him as a "rolling clinic and home."

The two package air conditioners, both of the windowsill variety, are mounted at opposite ends of the trailer, and are simply "plugged in" wherever the trailer is parked.

Locker Convention--

(Concluded from Page 1, Column 2) Guggedahl said. State secretaries will hold a conference at 2 p.m. that day.

On Tuesday evening, national officers and directors of the association will meet with state presidents and secretaries in the Hotel President. The next morning the association will hold a business meeting and elect new officers, he said.

All general sessions of the convention will be held in the Music Hall of the auditorium. Manufacturers and suppliers of locker plant equipment are staging an exposition in the auditorium concurrent with the convention to display "everything that is needed for the locker plant," Mr. Guggedahl stated.

Robinson-Patman Act--

(Concluded from Page 1, Column 5) demonstrator service, the cosmetic industry has been most involved.

"Food processors, electric cleaner manufacturers, and many others employing demonstrators are interested, but have occupied only sideline positions in the struggle to put the act into practice," it was noted.

Some business leaders favor amendments to remove vague language, such as "proportionally equal terms," while other say solution of the "proportional" question under law is impossible. Certain of these leaders point out that the right of private enterprise to employ and distribute sales help at its discretion should not be destroyed.

California Dairies Must Sell at List--

(Concluded from Page 1, Column 3) repairs and maintenance during normal life of such equipment, the law states.

Placing of refrigeration equipment on the floor of retailer without any charge is allowed if such equipment is used for storage to cut the normal number of deliveries and is not acceptable to the retailer for his ordinary services, the law further states.

Other phases in the marketing of milk, cream, and dairy products are covered by the new regulations, which were put through the California legislature as amendments to the state agricultural code.

For example, secret rebates and refunds are made unlawful; the giving of dairy products or services without charge except to bona fide charities is prohibited; and certain rules regarding advertising are incorporated in the amendment.

Another section prohibits the retailer from using the refrigeration equipment supplied by the manufacturer or distributor in accordance with the law for the storage of any product other than the frozen products supplied by the distributor who installed the equipment.

The new regulations will be administered by the director of the Bureau of Market Enforcement of the state Department of Agriculture, who is now working out rules to insure compliance with the new law. According to Mr. Jones, the contractors' association has been invited to offer suggestions in this regard to the bureau.

Violators of the new regulations will be subject to \$500 fine for each violation, recoverable in civil court.

Passage of the state law recalls previous efforts of this contractors' group along these lines. Nearly a year ago, on Sept. 11, 1946, the association filed a complaint with the Federal Trade Commission alleging unfair practices in the dairy industry.

"There is no doubt that our initial attack on this problem and our continued work have considerably hastened the adoption of this new law," asserts Mr. Jones.

Passed by the legislature and signed by the governor as Assembly Bill No. 894, the new regulations appear in Division 4, Chapter 12, of the California Agricultural Code. Extracts of important sections of the new regulations follow.

Important Sections Of California Law

730.2. In the marketing of market milk, cream and dairy products the following methods of doing business or trade practices are hereby declared unfair and unlawful:

(a) The payment, allowance, or acceptance of secret rebates, secret refunds or unearned discounts, whether in the form of money or otherwise.

(b) The giving of any milk, cream, dairy products, services, money, or articles of any kind except to bona fide charities for the purpose of securing or retaining the milk, cream, or dairy products business of any wholesale customer or consumer; provided, however, that nothing herein shall be construed to prohibit a distributor of frozen dairy products for reasonable compensation as provided in subdivision (j), from furnishing a wholesale customer with, and maintaining such refrigeration facilities as shall be reasonably necessary for the storage and preservation of the frozen products distributed by such distributor to such wholesale customer; provided further, that the use of said refrigeration facilities by any person for the storage or preservation of any product other than the frozen products distributed to said wholesale customer by the distributor furnishing such facilities shall be an unfair and unlawful business practice.

(c) The extension to any wholesale customer or consumer of special prices or services not made available to all wholesale customers or consumers who purchase milk, cream, or dairy products of like quantity under like terms and conditions.

1. No payment, credit, or compensation may lawfully be allowed by a distributor to a wholesale customer for advertising or display in connection with the sale of a distributor's milk, cream, or dairy product.

2. No payment of money, or payment, or gift, or loan of anything of value may lawfully be given to a wholesale customer for the privilege of painting or placing a sign, advertisement, or other advertising material, or otherwise advertising a distributor's product in, on, or adjoining any premises selling milk, cream or dairy products.

3. No outside advertising material permissible under this section may lawfully advertise items other than the distributor's milk, cream, and dairy products, and items made from the same, except not more than one-third of the space on such advertising material may be allocated to the customer's name and products served in conjunction with milk, cream, and dairy products.

4. Inside advertising material furnished by a distributor of frozen dairy products shall be confined and limited to

the advertising of the frozen dairy products manufactured by and/or distributed by the manufacturer or distributor of said frozen dairy products and/or their agents and may include the name, brands and description of the frozen dairy products of said manufacturer or distributor. Provided, further, that such advertising material furnished shall have no other use or value to said customer.

(j) Refrigeration facilities may be furnished by distributor to retail stores and other wholesale customers, only to the extent that they are reasonably necessary for the preservation of frozen products distributed by said distributor on a rental basis for reasonable compensation as determined by the director after conducting a survey. Such compensation must provide for interest on investment, reasonable depreciation, and cost of repairs and maintenance during normal life of such facilities; provided, however, that nothing in the aforementioned fair trade practice provisions shall be construed to prohibit the distributor or manufacturer from placing such equipment on the premises of any wholesale customer and maintaining the same without charging compensation therefor when he satisfies the director, with facts, that said equipment is not accessible for ordinary service therefrom to customers of such wholesale customer, and that it is used only for storage and preservation of frozen products distributed by the manufacturer or distributor furnishing said equipment, and that it results in a reduction of the normal number of deliveries and a saving in delivery costs of such distributor or manufacturer.

(k) All equipment, including refrigeration facilities, may be sold to retail stores or other wholesale customers. Such sales may be made for cash or on a conditional sales contract, which contract must provide for a payment of at least one-third cash and the balance to be paid on monthly installments for a term not to exceed 18 months. The prices prescribed in such conditional sales contract shall include interest at current rates and include installation and maintenance for the life of said contract.

(l) The selling of any new equipment by a distributor or ice cream manufacturer to any customer or individual at a price other than the printed retail list price of the equipment manufacturer, jobber or their agent and at terms different than the printed retail terms of said equipment manufacturer or jobber or agent shall be prohibited.

732. Any record or report made to the director pursuant to the provisions of this article shall be confidential and shall not be divulged except when necessary for the proper determination of any court proceedings or hearing before the director.

733.2. The director may bring an action to enjoin the violation or the threatened violation of any provision of this chapter or of any order made pursuant to this chapter in the superior court in the county in which such violation occurs or is about to occur. There may be enjoined in one proceeding any number of defendants alleged to be violating the same provisions or orders, although their properties, interests, residences, or places of business may be in several counties and the violations separate and distinct. Any proceeding brought hereunder shall be governed in all other respects by the provisions of Chapter 3 Title 7 of Part 2 of the Code of Civil Procedure.

733.4. Any person who violates any provision of this chapter shall be liable civilly in an amount not to exceed a sum of five hundred dollars (\$500) for each and every violation, such sum to be recovered by the director in any court of competent jurisdiction. All sums recovered under this section shall be deposited in the State Treasury to the credit of the Department of Agriculture Fund.

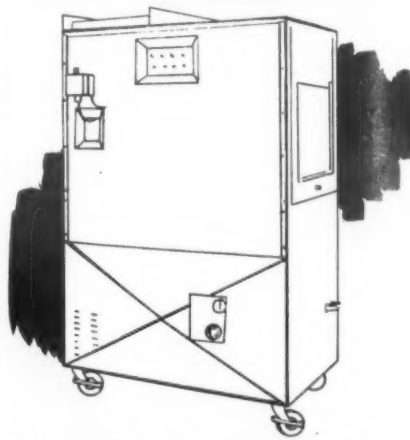
Sperti Acquires Faraday

CINCINNATI—Sperti, Inc., here, manufacturer of ultraviolet and sterilizing lamps, has acquired the Faraday Electric Corp. at Adrian, Mich. The firm henceforth will be known as Sperti-Faraday, Inc.

EXCEPTIONAL BUY!

Self-contained

AIR CONDITIONING UNITS



Price \$595.00 FOB Long Island City. Manufactured by Temprite—with Copeland Condensing Units.

Only water, drain and electrical connections required. (All controls included). 2½-3 Tons (30,000 B.T.U.) 1100 C.F.M. at 1" Static pressure.

Overall Dimensions: 39½" wide, 24" deep, 67½" high.

220 Volt-1 phase-60 cycle motors. Thermostat and other controls built in.

Address inquiries to Dept. CN.

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"See Your Kerotest Wholesaler" is more than a slogan . . it is your guide to dependable service on the finest line of air conditioning and refrigeration valves, fittings and equipment in the industry.

Kerotest Wholesalers were selected as distributors of Kerotest Valves and Fittings because they have proven themselves to be capable

businessmen who are equipped to give you the best in technical assistance, helpful information on new developments, and to serve as your supply source for the best of every type of part and equipment. Depend on your Kerotest Wholesaler. He carries your inventory for you . . stands behind its quality . . knows where to locate the hard-to-get items.

See your **KEROTEST** Wholesaler

KEROTEST MANUFACTURING CO. PITTSBURGH, PA.

AMERICA'S FIRST NAME IN QUALITY VALVES



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ALCO THERMO-LIMIT the valve for all jobs

- ▶ Separate Superheat Control
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- ▶ Easy-to-change Pressure Limit
- ▶ Liquid Charged—apply in any position, any temperature
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Set it and forget it!



Designers and Manufacturers
of Thermostatic Expansion
Valves; Evaporator Pressure
Regulators; Solenoid Valves;
Float Valves; Float Switches.

ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

By Providing for Customer Parking Space In Congested Area, Dealer Increases Sales 25%

NEW HAVEN, Conn.—That furnishing customers with the ability to park conveniently can have a lot to do with appliance sales has been demonstrated by Zemel Bros., appliance retailer here, who solved the pressing parking problem with the acquisition of a nearby parking lot.

The store, which was recently redecorated, features 10 nationally advertised franchised lines, and is located on downtown Orange St., with little or no parking facilities available. Making a check of the type of customer who came in both for major and small appliances, F. E. Zemel of the management discovered that 95% of them were riding streetcars, buses, or other public transportation.

Apparently, he decided, Zemel Bros. was missing the boat with the most valuable type of prospect of all—the head of the family.

The problem was solved by contracting for a large parking lot

around the corner on Court St., about 250 ft. from the store. Here, all customers of the appliance store obtain two hours' free parking, picking up a ticket on the lot, which is punched at the rear of the store.

To get people acquainted with the parking lot facilities, plus the newly modernized store, Zemel Bros. has staged an unusual window demonstration. Each day, a different appliance is demonstrated inside the store, while sidewalk traffic outside is attracted to clear, postless glass windows which permit an excellent view of the demonstrations.

A woman demonstrator, using a microphone and a public address system, describes each step as it is carried out, and pauses frequently in her commentary to explain the parking facilities around the corner. An immediate sales increase of better than 25% has more than offset the cost of customer parking, according to Zemel Bros.

Each Store In Rothman Bros. Appliance Chain Features 'Neighborhood Specialty'

ST. LOUIS—Rothman Radio & Appliance Co. here, operated by Isadore, Milton, and Joe Rothman, are "taking the store to the customer" rather than using outside selling crews—by virtue of having opened up three new "neighborhood stores" in the space of one year.

Rothman's took advantage of the war period to plan an "appliance chain" composed of "specialty stores" each featuring a merchandise lineup tailored to the neighborhood. For example, the Washington Ave. store, in St. Louis' automobile row, features drive-in service and sales on automobile radios, as well as 50 x 20 ft. showroom with Philco, Gibson, and Crosley refrigerators, home freezers, ranges, and washing machines.

Out on Delmar Ave., in a better-income district, a Rothman store carries phonograph records, complete major appliances, a "package

kitchen," small appliances, and a \$20,000 stock of phonograph records.

Still another store in lower-income South St. Louis is devoted to major appliances, small appliances, and phonograph records.

In the downtown store, exposed to the heaviest possible traffic, quick turnover selling is accomplished with another \$20,000 inventory of phonograph records, backed up by small appliances. Major appliance prospects are shuttled from this store to any of the other three, according to Joe Rothman, manager.

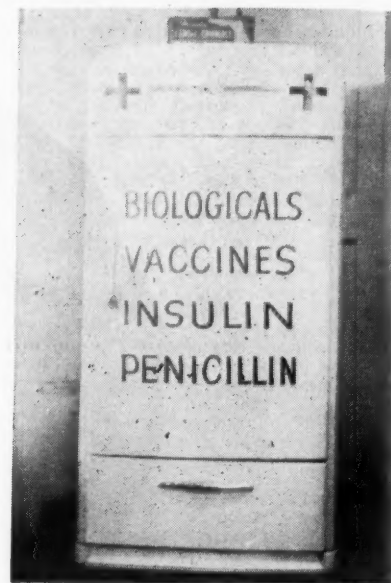
Building the four-store chain, say the brothers who have been retailing appliances for 20 years in the St. Louis area, is a practical answer to the "outside selling problems." Whereas, during prewar years, Rothman Radio & Appliance Co. sold over the city from two stores through a crew of five salesmen and a sales manager, sales personnel in the future will be all "floor men."

"What we have done is to bring a store carrying merchandise at the price levels and a variety which the neighborhood will best support," Isadore Rothman, who manages the Washington Ave. store, indicated. "All three of us are veterans in appliance merchandising, and it seems a pitiful waste of manpower for all of us to be operating a single store."

Rothman Radio & Appliance Co. was the first appliance dealer in St. Louis to carry 100% of all its customers' appliance financing, and also the first to do so without carrying charges.

Every store features wide, postless, plate-glass windows, brilliant fluorescent lighting, photo-electric "eyes" at the entrance, etc. Two stores feature comprehensive service departments, which will absorb radio and appliance reconditioning work from the other two.

It Tells the Story



Refrigerator Door Serves As Druggist's Billboard

LAKEWORTH, Fla. — The Ideal Drugstore on the Dixie Highway, here, has turned a refrigerator into a real "merchandising" asset for the prescription department, since C. A. David, head pharmacist, placed the refrigerator near the store's soda fountain.

"Lots of people still do not know that we carry biologicals," Mr. David pointed out. "Therefore, we have moved the refrigerator out where it may easily be seen, and use the door for a billboard. So that every customer understands that we carry complete lines of biologicals, we have used letters four inches high, which spell out the words biologicals, vaccines, insulin, and penicillin."

Lettering on the box can be seen from the front of the store 80 ft. away.

Peerless Performance AT YOUR FINGERTIPS!



The New Post-war INLAND SHUCKER ICE CUBE TRAY

(Available with or without Pan Lifter)

The new-as-tomorrow Inland Shucker Ice Cube Tray has *everything*... new streamlined beauty... sturdy construction throughout... simplicity and speed of ice cube delivery in any quantity... fast-action freezing of full-size ice cubes. And all these qualities add

up to the very last word in modern ice cube tray performance.

No wonder refrigerator makers, jobbers, dealers, and users everywhere choose the new Inland Shucker Tray. Get complete information about this remarkable new Inland ice tray today!

For full particulars and prices write to—

INLAND MANUFACTURING DIVISION, General Motors Corp., Dayton, Ohio



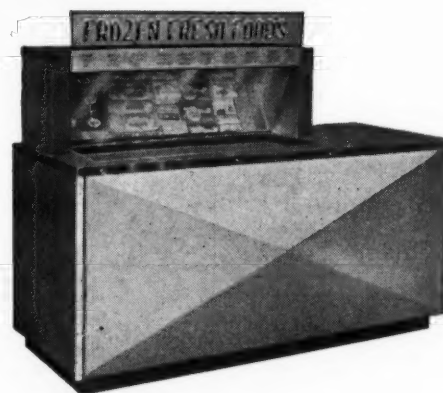
ROGERS QUALITY LINE of Refrigeration

Frozen Foods Salesman

Every store selling Frozen Foods, from small grocery store to giant superstore, wants one —needs one!

Open top display shows the foods, makes self-service easy, rapid, satisfactory.

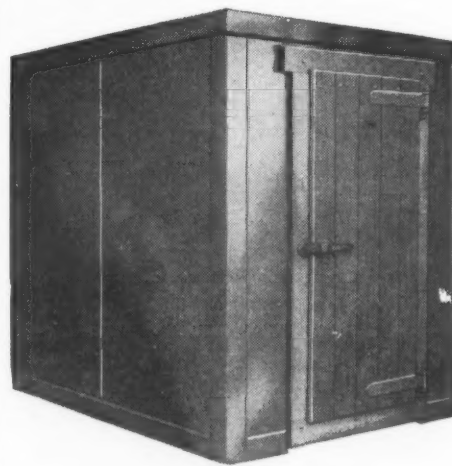
Heavy duty compressor.



Walk-in Cooler

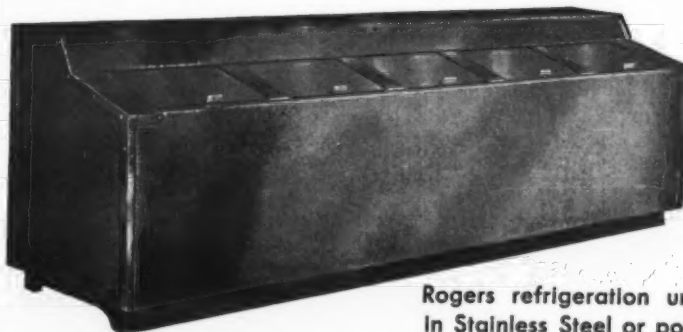
Dealers can invite their customers to "walk in and get one" because they are ready for immediate delivery.

Shiny and attractive in appearance and easy to keep that way. All metal clad inside and out, built for permanence and service.



Dry Beverage Cooler

Best looking on the market. Rapid cooling, high capacity. Lids slide away or lift out. All compartments can be open at the same time.



Rogers refrigeration units are finished in Stainless Steel or polished Aluminum.

DEALERS WANTED

Write, wire or phone today for information on franchise.

Immediate Delivery!

W. ALLEN

ROGERS

Industries

BOX 272-AC

DEMOPOLIS, ALA.

6-Month Wholesale Dollar Volume for Electrical Goods Doubles 1946 Rate

WASHINGTON, D. C.—Dollar volume of electrical goods sold at wholesale during the first six months of this year doubled the volume moved during the corresponding period last year, the U. S. Department of Commerce has reported.

Wholesalers' dollar volume of sales for the first half of 1947 generally increased 24% over the first half of 1946, the department said. However, sales for June, 1947, dropped 1% below those of May, it noted.

As of June 30, 1947, inventories, valued at cost, were 64% higher than on the same date last year, it declared. The department discerned little change in inventory status from May and stated that most of the increase noted occurred in the last four months of 1946.

Total Personal Income Sets New Record In June

WASHINGTON, D. C.—Because of larger payments of wages and salaries and bigger net income for farmers, the total dollar personal income of Americans set a new record during June, the U. S. Department of Commerce announced recently.

During June they were earning money from wages and salaries, interest, dividends, rents, from businesses, farms and partnerships, at the rate of \$193 billion per year.

This rate was \$1,200 millions higher than the record set last March and \$1,500 millions higher than May.

"The wage and salary increase was attributed in the main to a continued moderate expansion of factory payrolls, with the durable goods industries showing the sharpest rise," the department said.

The annual income rate for the first half of the year was \$191,200 millions, about 10% greater than last year and 250% greater than for the same period in 1940, the department indicated.

Bank Prepares Terms for End of Credit Controls

SAN FRANCISCO—When Federal credit controls end on Nov. 1, the Bank of America, National Trust and Savings Association here, is planning to finance home appliances on the basis of 20% down on sales up to \$200 and 15% down on larger amounts with 24 months to pay.

E. A. Mattison, executive vice president of the bank, conceded that these terms are not as liberal as those offered before the war but were sound in relation to present conditions.

He offered the following schedule of down payments as examples: on \$200 sales, \$40; on \$300 sales, \$50; on \$400 sales, \$60; and on \$500 sales, \$75.

Cohn Partner Dies In East

HAZLETON, Pa.—Sam Cohn, partner in the S. A. Cohn & Bros. firm, died here recently. Harry Cohn will continue to run the business.

Hamilton Names Ahlbrandt Director of Manufacturing

TWO RIVERS, Wis.—J. Paul Ahlbrandt has been appointed to the newly-created post of Director of Manufacturing of the Hamilton Mfg. Co., here, according to an announcement by E. P. Hamilton, president of the company.

Mr. Ahlbrandt's first official step will be the supervision of the building and layout of a new two-story plant addition.

Hamilton's new Director of Manufacturing has been employed previously by Bendix Home Appliances, Inc., Midwest Mfg. Co., the American Rolling Mill Co., and Borg-Warner Corp.

May Co. Denver Store Shifts

DENVER—The May Co. here has appointed Henry Lowen buyer and supervisor of the radio department to succeed O. S. Scott who will devote his entire time to purchasing and servicing of major appliances.

Ventilator Fan, Clothes Dryer Sales Tie-In Urged

BRIDGEPORT, Conn.—In order to dissipate the high humidity that results from operation of an automatic clothes dryer, a ventilating fan should be sold with every unit, C. K. Rieger, commercial engineer of the General Electric home laundry equipment division, told dealers recently.

Without such a fan, "there is excessive condensation on the laundry walls which causes paint to blister," he declared.

He explained that a dryer loaded with the damp equivalent of 8 lbs. of dryer clothes exhausts 1 gal. of water into the air per hour.

New G-E Div. Set Up at Erie

ERIE, Pa.—Organization of the purchasing division of the household refrigeration department, Erie works, General Electric Co., was announced here. G. F. Simmons is the supervisor. D. C. Behringer is chief clerk of the division. L. S. Harris and M. L. Kern are buyers.

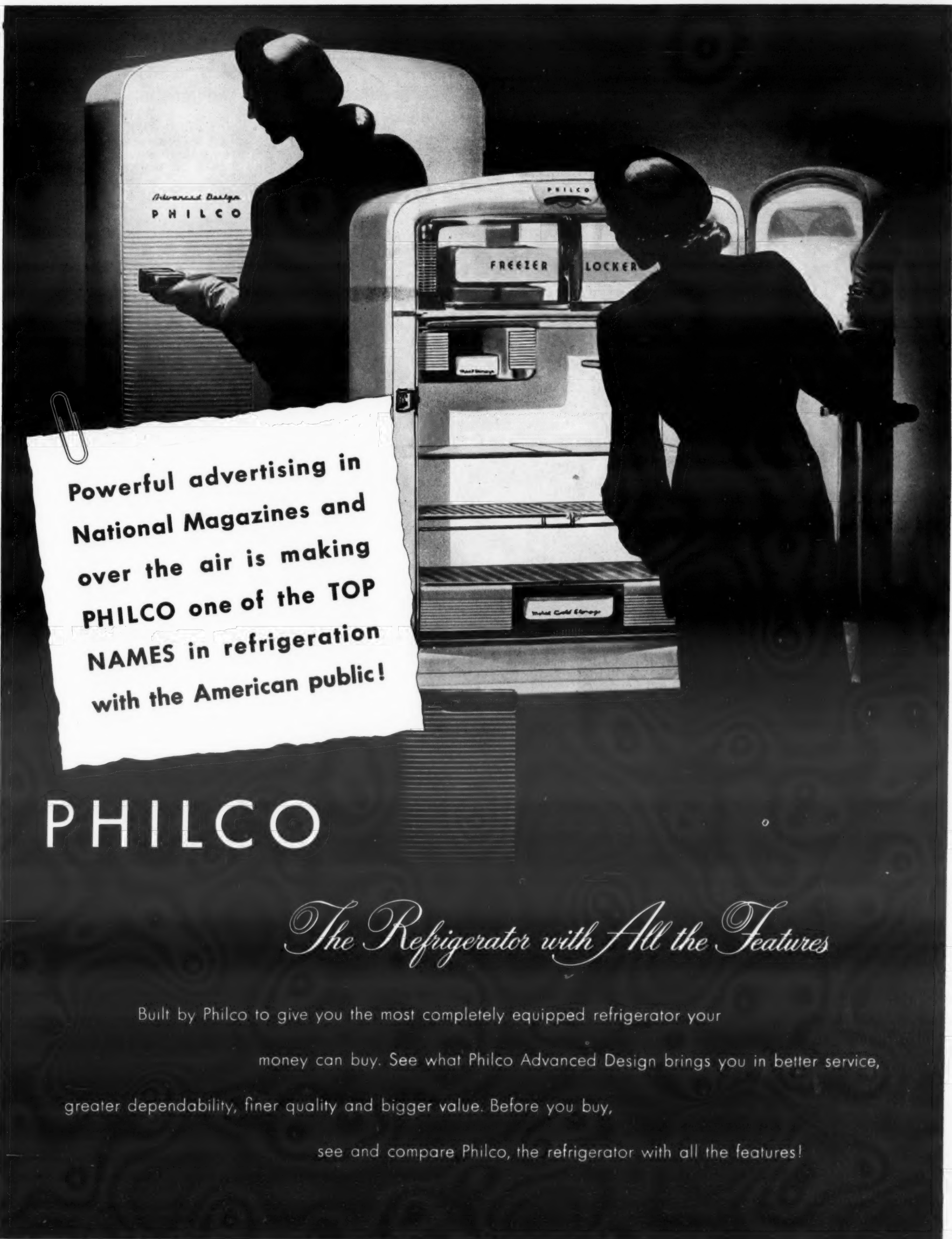
Taylor Gets Buyer-Manager Post with St. Louis Dealer

ST. LOUIS—Charles Taylor, of Famous-Barr Co.'s basement appliance department, has been named buyer-manager of major appliances and radios at Biederman Furniture Co. here. He succeeds Harry Packman, who resigned to set up his own business.

About five specialized salesmen are to be under Mr. Taylor's supervision, in keeping with a plan begun last April in the floor coverings department when John Neuburger was named buyer.

Previous to that, none of the store's salesmen had been assigned to any specific department. Merchandise Manager Russell Meyer explains that the times call for specialization in selling and that the program is being considered for other departments.

The appliance and radio departments are to be remodeled and expanded as part of a store-wide program.



Powerful advertising in National Magazines and over the air is making PHILCO one of the TOP NAMES in refrigeration with the American public!

PHILCO

The Refrigerator with All the Features

Built by Philco to give you the most completely equipped refrigerator your money can buy. See what Philco Advanced Design brings you in better service, greater dependability, finer quality and bigger value. Before you buy, see and compare Philco, the refrigerator with all the features!

It's a
REVELATION
—that's all!

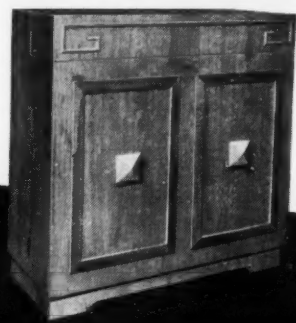


- ★ Exclusive Dealer Franchise
- ★ Now in quantity production
- ★ All sizes: Industrial and Commercial
- ★ The last word in...

**ELECTRIC
WATER
COOLERS**

Revelation Company
Division of
Interstate Engineering Corporation
2600 Imperial Highway
El Segundo, California

New 1948 Credenza Model

Improved Quality Features
You Can Promote
Profitably Now

- Size, closed: 42" wide, 42" high, 18" deep
 - 42 large ice cubes in one freezing
 - Over 3½ cu. ft. of refrigerated storage
 - Concealed liquor compartment
 - 8 sq. ft. of serving bar with mirrored surfaces
 - Decorator-designed cabinet adds a luxurious modern note to any style of interior
 - 3 beautiful finishes: mahogany, walnut, lined oak
 - Built-in cabinet lock for complete protection
 - Refrigerator section is fully equipped with evaporator, 3 self-releasing shucker trays, glass drip tray, dial temperature control, adjustable shelf, rack, satin-finish aluminum lining and fibre glass insulation.
- Universal Cooler hermetically sealed ½ H.P. Condensing Unit warranted for one year.

NOW READY FOR IMMEDIATE DELIVERY

Penguin refrigerated Bar

for Home, Office and Showroom

DELUXE
SERVING BAR
+
ELECTRIC
REFRIGERATOR
+
LIQUOR
CABINET



all blended in a
SUPERBLY ENGINEERED VALUE!

ATTRACTIVELY PRICED FOR FULL RETAIL MARKUP WITH FULL YEAR PARTS GUARANTEE

Write or wire now for complete details

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A NEW I. D. FOR YOU

Now, a ready-to-use Wolverine Trufin



You no longer need to perform costly stripping or expanding operations on Wolverine Trufin tube prior to making end connections. Instead, the Inside Diameter of Trufin is controlled; and inserted end connections can be easily and economically made by brazing any standard tube into THE integral finned tube. You can readily utilize any length or random lengths by simply cutting Wolverine Trufin to meet your requirements.

All connecting tubes, whether flared, threaded, bent, etc. can be assembled to Trufin without any additional preparation.

Send for our new Form S-651, which gives complete specifications and other helpful information about Wolverine Trufin—THE integral finned tube.



WOLVERINE TUBE DIVISION

CALUMET & HECLA CONSOLIDATED COPPER COMPANY

MANUFACTURERS OF SEAMLESS COPPER & BRASS TUBING

1411 CENTRAL AVENUE • DETROIT 9, MICHIGAN

Mobile Unit Demonstrates Air Conditioning



Howard Oas (above) of the Gibtrac Co. in San Antonio, Texas, demonstrates a unique method of selling prospects on air conditioning in his territory. The box-type rig on the back of his half-ton truck houses a 690-lb. air conditioner which pumps right into the prospective customer's home or business establishment through the attached canvas air duct. Length of the air duct is 20 ft. One end is connected to the unit and the other fits into most standard window frames.

Liquid Carbonic Names 3 Forseille Heads Output
In Reorganization of Sales At Baltimore Aircoil Co.
Engineering, Service Dept.

CHICAGO—A re-organization of the service and sales engineering department in The Liquid Carbonic Corp. to keep pace with increasing customer needs is announced by Executive Vice President J. H. Pratt.

Cecil Merryman has been appointed soda fountain service manager for all sales regions of the company, and Stanley H. Palmer has been made ice cream cabinet service manager.

Mr. Merryman was transferred from Cleveland, where he was central region fountain-cabinet service manager.

Mr. Palmer joined the Liquid organization in 1945 after two years with the navy as a civilian radar field engineer. Before that he was ice cream cabinet service supervisor of the Telling Bell Vernon (ice cream) company for several years.

John G. Praetz, who had been general service manager of the fountain-cabinet division for seven years, was made director of service and sales engineering for the company's bottling machinery division.

Latest Carrier Installation
Is In N. Y. Bowery Follies

NEW YORK CITY—Sammy's Bowery Follies, famous New York night club at 267 Bowery, which caters to the Bowery boys as well as sightseeing up-towners, has been air conditioned with equipment supplied by Carrier Corp.

The Carrier equipment, providing 25 tons of refrigeration capacity, was installed by the Thermodyne Corp. at a cost of \$10,500.

BALTIMORE—Election of Ray R. Forseille as vice president in charge of production has been announced by the Baltimore Aircoil Co., Inc., manufacturer of evaporative condensers.



Ray R. Forseille Italian campaign.

Mr. Forseille joined the company in November, 1945, when he was discharged from the Army as a lieutenant. He was with the 91st Division in the

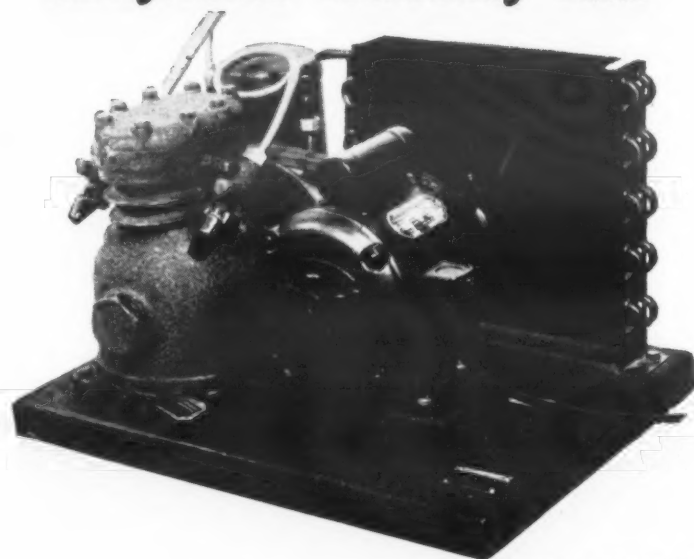
Airtemp Appoints Firm
To Handle Beaumont Area

BEAUMONT, Texas—The Booth Sheet Metal Works here has been appointed exclusive dealer and distributor of Chrysler Airtemp products in a seven county area surrounding Beaumont, George Booth, manager and one of the owners of the establishment, has announced here recently.

Counties covered by the firm are Jefferson, Hardin, Newton, Tyler, Jasper, Orange, and Chambers, he said.

To handle Airtemp products, the firm has created a new department and placed Homer C. Innis, Jr. in charge.

G. E. Engelmann, with 12 years experience in the air conditioning, refrigeration, and heating fields, will service all installations for the company, Mr. Booth stated.

MULTIPLEX
Refrigeration Condensing Units

NOW AVAILABLE

Complete with motors in
¼, ½, ¾, and 1 HP sizes

Inquiries From Jobbers Invited

Multiplex Manufacturing Co., Berwick, Penna.

Sales Go Up, Overhead Comes Down When This Retailer Tries Pre-Packaging Meat

LINCOLN, Neb.—Utilization of refrigerated storage and display in compact arrangement has enabled Oliver Topliff to reduce his payroll 30% while selling 10% more meat at the Oliver's I.G.A. Store, 2639 Randolph St.

These advantages have accrued from a pre-packaged meats system Mr. Topliff put into operation last November, and he believes the system is so far superior to the conventional meat department that it will be adopted generally in retail food outlets before many years have passed.

The Lincoln retailer operated a grocery store and market for a number of years before he decided to try out pre-packaged meat selling. He selected the Randolph street location last year after obtaining all available information on pre-packaged meats from stores in other cities and from the Dupont company. The new location was remodeled to his specifications, with the meat department at the rear.

A 10 x 10 walk-in box was installed with two doors. One serves a section for hanging meat and the other a section fitted with shelves for boxes and packages of meat. A 1½-hp. refrigeration unit operates this box. Directly off the walk-in in a 10 x 7-ft. space is the workroom, which Mr. Topliff said provides ample room. The slicer, grinder, and scales are mounted on one side where electrical outlets have been installed for the power equipment. The cutting block is on another side, while the wrapping counter is across from the cutting block.

Time In Dept. Halved

Mr. Topliff does his pre-packaging during the hours when business is at a lull, and on Fridays he packages enough cuts for the Saturday rush. He spends only half as much time in the department as would be required in a conventional meat department, and requires the help only of a part-time girl to do the wrapping. This enables him to give considerable time to management of other departments, and he runs the entire store with the help of only one other full-time employe and a part-time employe, or 30% less personnel than would be required with the conventional meat section.

Aligned against the wall and adjoining the packaging department are two 10-ft. reach-in cases which are refrigerated by a separate 1½-hp. compressor. These cases are covered with aluminum for better

sanitation and appearance. At the end of two cases is a frozen food case for self-serve shopping of frozen foods and ice cream. Painted on the walls above the cases are the departmental signs—"Refrigerated Self-Serve Meats," "Refrigerated Self-Serve Dairy Products," and "Frozen Foods—Ice Cream."

The Lincoln man has done considerable experimenting with wrapping materials, and has had best success with MSAT Dupont for fresh meat. It has one uncoated side which is placed against the meat and does not turn brown. Thus the pre-packaged merchandise remains plainly visible through the wrapping for an indefinite period, enabling patrons to see exactly what they are buying, and providing an attractive, sanitary display.

Mr. Topliff finds that customers prefer pre-packaged meats and self

service to buying meat over the counter from a butcher. The new system precludes arguments with the meat salesmen, waiting in line the rush hours, and also is more economical for the management. Furthermore, he pointed out, the arrangement saves store space, so that he is able to maintain larger and more attractive sections in dry groceries, etc., than would be possible if a conventional meat department had been installed.

A tray with compartments for the various price tags sets on the wrapping counter where the wrapping girl can select them for the various cuts without moving. Slightly less than 2 in. square the tags are water-proofed, but Mr. Topliff has found they tend to discolor when placed inside next to the meat, so he has them affixed to the outside. Name of the cut, "Sirloin Steak," for

example, is printed at the top of tag, while below is space for writing in "..... lbs. oz. @ Total Price Oliver's I.G.A. 2639 Randolph, Phone 3-6853." He has found Scotch tape satisfactory for sealing the packages.

They Can't Miss Meats

The store is 25 x 75 ft., with fluorescent lighting and rubber and asphalt tiling. A continuous floor fixture with a series of open shelves on each side runs the length of the floor, so that patrons must walk back to the pre-packaged meat section before they can get to the other side of the store. The remodeling project included insulation of the sides and dropping the ceiling to give added insulation space above as well as adding to the appearance. This factor has proved highly satisfactory in helping to keep the store cool in the summer, and easy to heat in the winter. It also saves on refrigeration for the reach-in vending cases and the frozen food case.

The new system has boosted meat sales to the point where they account for 40% of his total store sales, or about 10% greater volume than

when he had a conventional meat department in his former location.

When he packages more meat than he sells for the day, Mr. Oliver stores the remainder in the walk-in compartment equipped with shelving. It could be left safely in the reach-in cases, he said, but it is a minor job to move the left-over packages, since the cases are close to the walk-in box, and it also enables him to clean up the reach-in cases more efficiently each day.

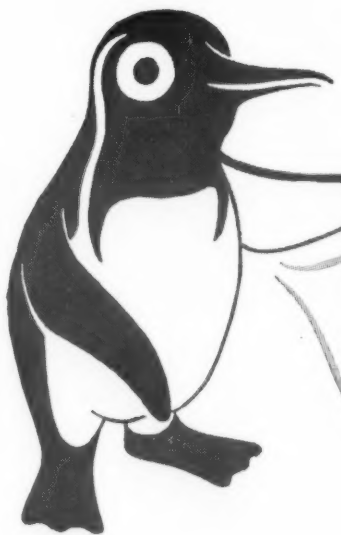
Mr. Topliff pointed out that operation of a pre-packaged meat department is considerably simplified by the fact manufacturers themselves pre-package a number of items such as wieners, bacon, fish fillets, etc. He believes the time will come when the manufacturers will furnish an entire line of pre-packaged meats, since they can do the job better and more efficiently than the retailer.

Factors which are certain to zoom the popularity of pre-packaged meats, he declared, are greater sanitation, more economical operation for the retailer, more attractive appearance of packaged meats, and the fact that the housewife likes to choose for herself.

NOW
216 Cube ICE MAKER
in the KOCH
All Stainless Steel Refrigerator



*The First Really
NEW Postwar
Refrigerator*



With the addition of a twenty-one pound ice maker, America's finest commercial refrigerator becomes America's most versatile commercial refrigerator. Freeze 216 cubes at a time, or remove four trays and a shelf, leaving 108 cubes, and gain a space 5½-in. high, 13-in. deep, and 12-in. wide for storage of frozen foods. This Koch all Stainless Steel reach-in refrigerator is fully welded into one unit without any wood members to interrupt insulation! With 64 years of refrigerator manufacture, plus rich experience accumulated in making Stainless Steel refrigerators for the U.S. Navy, Koch assures you of a thrifty performer and a lifetime of service. The Koch reach-in is a beauty to look at and own!

The Koch Reach-In 25-cu. ft. refrigerator is now available with or without the ice-maker.

"Koch is Top Notch"
KOCH Refrigerators

NORTH KANSAS CITY 16,

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FREEZER
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THE POSITIVE ALARM FOR ALL FROZEN FOOD CABINETS

• The simplest device you have ever seen to warn of mechanical troubles. Designed for use in any low temperature cabinet. Can be installed in two minutes by anyone.

Buzzer, battery operated. Trickle charger insures five-year battery life. Buzzer operates 100 hours. Actuated at plus 12°F by mercury contact. No thermostat to get out of order. Action is as positive as gravity.

A package item that sells itself on the first service call, or to new owners of freezers.

Immediate delivery. Write us for details and discounts.



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1033 MAIN ST. BUFFALO 8, N. Y.

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CAST ALUMINUM

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- SODA FOUNTAIN COOLERS
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THE MASTER SERVICE MANUALS - - -

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BUSINESS NEWS PUBLISHING CO., DETROIT



"...and it weighs so much less!"

Important to the manufacturer of cabinet and other types of self-contained refrigeration units is the light weight of the new Mills Direct Drive Compressor. It makes possible lighter support structures, easier handling, and reduced transportation costs.

This saving in weight is possible partially through a reduction in size and the elimination of drive wheels and belts. Yet there has been no sacrifice in accessibility and ease of service and repair in the field. Through a number of remarkable engineering developments, the Mills Direct Drive Condensing Unit is more efficient than either hermetic or conventional belt-driven compressors.

MILLS
Direct Drive
COMPRESSOR

First post-war addition to a distinguished family of air- and water-cooled condensing units

MILLS INDUSTRIES, INCORPORATED • 4100 FULLERTON AVENUE • CHICAGO 39, ILLINOIS

Water Cooler and Air Conditioner Rental Makes Way for Many Sales

Few Customers Want To Give Up Equipment, So Dealer Applies Rental Charge to Cost

ST. LOUIS—The best way to sell a prospect either a packaged room conditioner or electric water cooler is by first renting it to him on a "trial basis," according to C. B. Morris, head of Air Guard & Cooler Co., refrigeration dealership here.

Air Guard & Cooler Co., established eight years ago, is the brain child of Mr. Morris, who has more than a decade of experience in various phases of the refrigeration industry. A decade ago, he noticed that many commercial offices, insurance firms, etc., were getting along without electric water refrigeration, although they obviously needed it, and could well afford the cost.

Nationally Advertised Lines

Therefore, he obtained franchises for four leading nationally advertised lines of water coolers, and a little later, similar franchises on packaged room conditioners, and went aggressively into the rental and sales field.

Utilizing direct mail, newspaper advertising, and personal calls, Air Guard & Cooler Co. has been successfully selling a record volume of room coolers, water coolers, and commercial-sized packaged conditioning units ever since.

Direct mail, which carries photographic cuts of popular water coolers, room conditioners, etc., is sent to a long list of professional and business men who may be expected to buy either.

In fact, Mr. Morris believes that he can sell both types of refrigeration to the same prospects so often that the direct mail is never "specialized" on one item. Hundreds are sent out early in the year at the beginning of March, to give the prospect plenty of time to set aside an appropriation for the purpose and to think it over.

In all forms of direct mail, Mr. Morris advises his customers to get a reservation in early, rather than running the risk of disappointment later on.

Rates charged for water coolers are \$95 per year, this covering four nationally advertised lines of 10-gallon coolers. Included in the \$95 a year are one season's free maintenance, plus, of course, a four year warranty against mechanical breakdown.

If the customer wishes, the rental price at the end of the first season may be applied to the purchase price, which averages \$222.50 for one line, and \$235 for another. Few customers, of course, after the plumbing lines have been installed for a water cooler will relish the prospect of giving it up—and thus, almost every "rental" is actually a "sale."

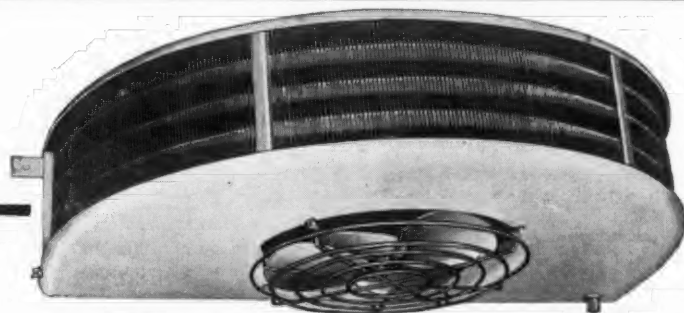
Air Guard & Cooler Co. was just getting under way with package conditioner sales when the war put a stop to this enterprise. Now, however, fortified with an ample stock of all types, the company is featuring ½-ton window models, and ¼-ton console package conditioners heavily, selling respectively at \$372.50 and \$595.

Concentrates on Console Model

Finding that in St. Louis' excessively high summer heat, something a bit more potent than the ¼ of a ton was necessary, Morris has concentrated on the water-cooled console model which sells at \$595, and gives in effect the same amount of cooling as the 1-ton unit. Rental charges for these average \$225 per year, seeming at first a large sum, but actually unimportant as the rental is invariably a down-payment on the ultimate purchase.

Recently, the company was franchised to handle Philco, Gemco, and Carrier package units.

Air Guard & Cooler Co. maintains a large service shop capable of completely rebuilding any package air conditioning equipment or electric water cooler, and has a full staff of specialists on each. At present, the amount of sales or rentals which can be made are limited only by a shortage of supply.



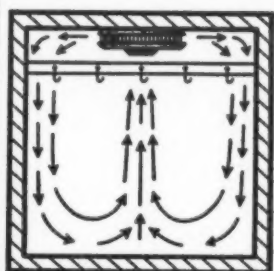
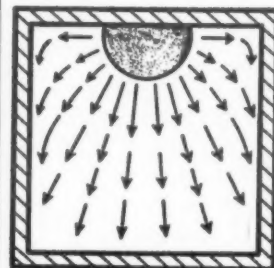
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THE NEW
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COOLING UNIT
with Air Purification
FOR WALK-INS

TAKES NO
STORAGE
SPACE
FROM A COOLER

Sold by Leading Refrigeration Wholesalers

BETZ CORPORATION
HAMMOND • INDIANA



How To Keep Specialty Salesmen Happy Experience Proves 'Fair Distribution' Plan Is Better Than a 'Star' Salesman

AUGUSTA, Ga. — Earnings of satisfied specialty appliance salesmen are kept almost precisely the same through a "fair distribution" plan worked out by Roy Gallagher, major appliance buyer for the Davison-Paxon Co. here.

Davison-Paxon a year ago built a separate appliance annex, in which are featured Kelvinator, General Electric, Deepfreeze, Bendix, Laundrell, Maytag, Easy, Universal, and Coleman major appliances. In the 3,000-sq. ft. store, immediately behind the main building, these brands have been backed up with good delivery quotas, so that four floor salesmen and one outside salesman have always had something to offer their customers.

Reminiscent of bad experiences with "star salesmen" and ruffled feelings when one commission-paid salesman outran all the others before the war, Mr. Gallagher has set up a plan whereby every salesman gets the same amount of new appliances to sell following every delivery—whether it is a dozen new refrigerators or one automatic washing machine.

Each shipment of new appliances is equally divided among the staff, so that everybody gets eight washers, three refrigerators, and five ranges, for example, at the same time. In developing compensation plans for the new store, Mr. Gallagher called the men in and put the proposition up to them as the fairest possible arrangement.

The result is that incomes are the same except for one outside man who will be augmented by two more shortly. Inside men receive a \$60 per week drawing account and 5% commission on all appliance sales up to complete package kitchens, while the outside man receives 6% commission, a \$60 draw, and more prospects from a "prospect pool" maintained in the sales office.

Denver Dealer Eliminates Split Commissions, Cuts Sales Crew In on Store's Net Profits for Year

DENVER—In the search for top-quality, satisfied salesmen who will remain with the store for a long period, A. B. Doniphan, head of Marshall Auto Supply here, has set up a program whereby specialty appliance salesmen will be allowed a drawing account, a commission, and a percentage of net profit over a year's gross business.

"Our system is such that no salesman will ride along on the energy of another," Mr. Doniphan grinned. "However, it also incorporates a plan whereby it is to every salesman's advantage to help each other, with the idea of promoting the department as a goal.

Other store employees, including girls in the record shop, and a woman demonstrator who goes out to stage demonstrations of newly delivered appliances, are paid a straight salary, plus commissions on small appliance sales.

Striving to keep specialty men happy, the department store buyer gives each man a liberal choice of prospects from the 40,000 charge account customers on list, plus a long stack of priority registrations as yet unfilled.

Due to well established quotas before the war, Davison-Paxon has been able to quote deliveries of from 30 to 60 days on almost all appliances. Every salesman keeps his prospects for 30 days, after which the file card bearing the history of sales attempts is turned into the prospect pool.

A 1,500-sq. ft. service department has been set up, with two expert mechanics who can handle all warranty service, and any refrigerator overhaul up to sealed units. Both men receive a flat \$60 per week plus \$1.50 an hour overtime, and a share in service department profits at the end of the year.

To make sure that the service department isn't dead weight, Mr. Gallagher has stipulated that all major appliances are sold "less installation," with the installation amount being credited to the service department before commissions are paid. In this way, service income counts in the \$499,000 sales volume done the first year.

The store is split into three sections, radios, major appliances, and traffic appliances, with an all-electric model kitchen and an all-electric operating laundry at the rear. Through extensive training on kitchen estimating and installation, the store has sold 47 complete kitchens, from \$250 to \$3,700, in less than one year.

Pearson Sporting Goods Opens Appliance Dept., Names Harry Cohen Mgr.

PHILADELPHIA — More than 4,000 sq. ft. in the new Pearson Sporting Goods Co. building at 1010 Chestnut St. will be devoted to the merchandising of major appliances, radios, and television receiving sets, it was made known here by Albert Pearson, president of the firm.

Pearson's, new to the major appliance business, will handle General Electric ranges, refrigerators, radios, vacuum cleaners, home freezers, sinks, automatic dishwashers, and irons. Silux and Steam-O-Matic steam irons also have been added to the firm's lines, along with RCA Victor radios and television and Arvin and Motorola radios.

Harry Cohen, who previously was associated with the Germantown Electric Supply Co. as office and credit manager, has been named manager of Pearson's appliance department. He announced that the firm will emphasize time payment sales.

L. K. Ward Adds 3 Stores To L. A. Appliance Chain

LOS ANGELES—With the opening of three new outlets early this month, the L. K. Ward appliance chain here increased its total of suburban stores to 18, it was announced here.

The new stores are spotted in Culver City, Glendale, and at 2421 Daly St. in the city.



LOW TEMPERATURE - 34°

STORAGE TYPE WATER COOLERS

HIGH HOURLY RATINGS... FOR USE WITH 1/2 to 15 HP CONDENSING UNITS

PACKAGED & REMOTE MODELS IMMEDIATE DELIVERY

FILTRINE MFG. CO.,
53 Lexington Ave., BROOKLYN 5, N. Y.
"Manufacturers of Filters and Coolers for over 40 Years"

WATER COOLERS

Suitable for BAKERIES, BOTTLERS, FILM PROCESSING, JACKET COOLING, DRINKING WATER AND ALL APPLICATIONS

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TRADED-IN REFRIGERATORS...from 2 to 18 cu. ft.

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HOTPOINT • KELVINATOR • NORGE • PHILCO
WESTINGHOUSE and OTHER FAMOUS BRANDS

ATTRACTIVELY PRICED for PROFITABLE RESALE

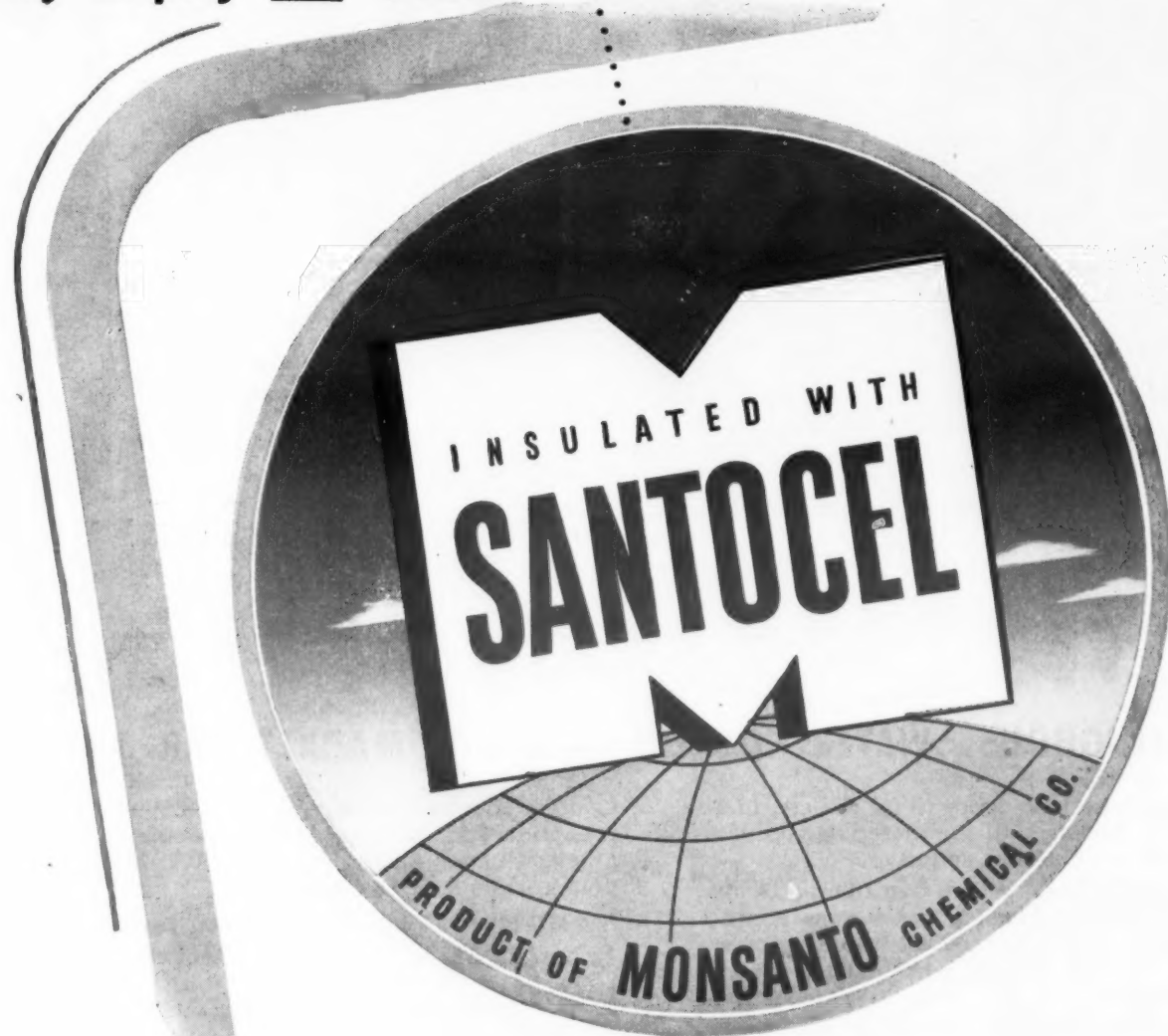
METRO REFRIGERATOR CO. 44-3rd Ave., New York 3, N. Y.
A Continuous Reliable Source of Supply

WRITE FOR LATEST PRICE LIST

only users of

"THE WORLD'S MOST EFFICIENT INSULATION"

may display this SEAL



SANTOCEL SAVES SPACE

The seal shown above on domestic or commercial freezers or refrigerators means the manufacturer is using Santocel... the finest insulating material it is possible to get.

It means, too, that the unit occupies minimum floor space in relation to inside capacity... that wall thickness has been reduced without

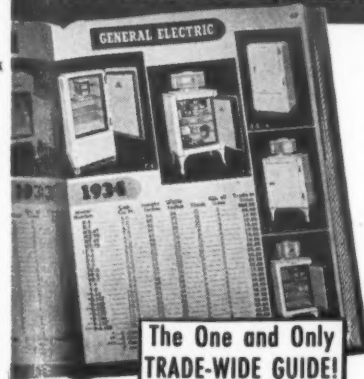
the loss of cold or the loss of efficiency.

If you produce refrigerating equipment of any kind, you should know the complete story of space-saving Santocel. For technical information and engineering cooperation, write: MONSANTO CHEMICAL COMPANY, Merrimac Div., Boston 49, Mass. (Santocel: Reg. U. S. Pat. Off.)

MONSANTO
CHEMICALS • PLASTICS

S E R V I N G I N D U S T R Y . . . W H I C H S E R V E S M A N K I N D

The STANDARD Reference Manual on REFRIGERATORS and FREEZERS



**NEW 1947-1948
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NOW IN PRESS!**

- More than 1150 photographs
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- Authentic trade-in valuations for all household refrigerators marketed since 1928.
- Operating data on Merchandising, Promotion, Reconditioning

The One and Only TRADE-WIDE GUIDE!

• Arranged and indexed for quick reference.

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Use the Standard Manual to identify and evaluate every refrigerator and freezer accurately.

Bookbound in washable green cloth—320 pages. Pocket Size—4 3/4" x 6 1/4". Price—\$6.00

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Built to U. S. Navy specifications for hot tropical conditions.

Wide Range of Utility:

- Frozen Food Storage
- Sharp Freezing
- Fresh Meat Storage
- Ice Storage
- Air Conditioning, etc.

All units in original packing
Refrigeration Sales & Service
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**CURTIS
REFRIGERATION**
AIR CONDITIONING
COMMERCIAL

**For All Your
Refrigeration and
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Curtis Refrigerating Machine Division
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1912 Klenlen Ave. St. Louis 20, Mo.

Established 1854

Superior

**VALVES, FITTINGS
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**For All
Refrigeration and
Air Conditioning Systems**

Superior

Valve and
Fittings Co.
PITTSBURGH 20, PENNA.

INSIDE DOPE

by **GEORGE F. TAUBENECK**

(Concluded from Page 1, Column 1)

that were apparent in Italy and Germany before the ascendancy of Mussolini and Hitler and in France before the invasion—have long been obvious in America's social, political, and economic structures.

Internal forces more dangerous than any foreign aggressor threaten the country's future. These internal forces will surely destroy the nation unless we can find renewed unity, and unless again we can learn to cooperate effectively among ourselves.

It is later than you think.

The American Cancer

Although our national degeneration has resulted primarily from the complacency and indifference of the average citizen—which, incidentally, means you and me—the process of national disintegration has during recent years been greatly accelerated by Russia's fifth column—the American communists and their fellow travelers who, for more than a quarter century, have been boring from within our American institutions. Year after year the operations of these agents of a foreign enemy have become more pervasive and destructive. Our complacency and indifference provide the fertile seed-bed for this foul growth.

Today, communistic influence is so apparent in virtually all American

institutions that one has only to read the daily press for confirmation of its virulence and virility.

General MacArthur once said: "Over all things and all men in this sphere of the universe hangs the dread uncertainty arising from impinging ideologies which now stir mankind. . . . A problem which profoundly affects the destiny of all men and the future course of all civilization." For this statement General MacArthur was promptly attacked in the public press by an anonymous member of the Department of State. Communistic influence is prevalent throughout our multitudinous federal departments and bureaus.

It is a matter of common knowledge that many of our labor organizations are controlled by communistic agents who are responsive only to the Moscow "party line." The goal of these unions, therefore, is not "collective bargaining," but the destruction of American industry.

Dr. George S. Benson, president of Harding college, spends much of his time in contact with the pupils of our public schools. Not long ago he issued the following report:

"Within the last 12 months, I have been privileged to talk with students of a great many high schools and colleges in widely scattered states. I have discussed private enterprise and state socialism with them, and I can testify that most of them seem to consider private enterprise a failure. Some of them have been extremely well coached to debate against the American system."

Conclusive evidence of communistic infiltration into our American institutions can be cited endlessly. This dangerous infection is far advanced. Its progress can be stopped only by

a great educational crusade, by the revival of knowledge of and faith in those high principles that made America great.

History Repeats

The decline of our country closely follows the pattern of Rome's decline.

Caesar spent tax money lavishly. He provided public entertainment, and he sponsored many projects to relieve unemployment. The State gave the people bread and circuses—"security" instead of opportunity. As his spoils system spread throughout the republic, he became so popular that the people abandoned their voting rights. And then the power of the Roman Senate declined, and Caesar ruled supreme.

Open any history of Rome, and read of Diocletian's New Deal, which was instituted in the year 301 A.D. Then the Roman Senate became politically impotent, and the last traces of republican institutions disappeared. Bureaucracy ran rife. According to some authorities, half the population was on the government payroll, and government became so unwieldy that Diocletian proposed that there should be two Caesars and two assistant Caesars. All transactions were under price control. The burden of taxes became unbearable. Money lost all value. Thus was Rome prepared for the Barbarian Invasion.

Who can deny the statement that "history repeats itself?"

Russia vs. U. S.

Russia cannot hope to win a war with this great republic until Russia's internal strength has been enormously increased or until the internal strength of America has been greatly weakened.

At the moment we have three great advantages over Russia, but these advantages may not be long retained.

Here they are: Our industrial capacity is many times greater than that of Russia, and the results of modern warfare are determined by relative industrial strength. The United States is trusted and held in high esteem by many nations of the world. And, finally, we have the atomic bomb.

We may not hold these advantages long. The damage that has been done to our industrial capacity since V-J Day is beyond calculation. And, unless we quickly abandon industrial strife and achieve industrial cooperation, we may lose this advantage, not because of Russia's industrial growth, but through loss of our own industrial strength. If the processes through which our industrial strength were developed can be re-established, Russia can never, under her system of compulsion, hope even to approach the effectiveness or capacity of American industry.

The esteem in which the United States is held by other nations is rapidly being dissipated. They know that we reduced our military strength with astounding rapidity after the war's end. They know how weakly we have appeased Russia, and they also note that the Atlantic Charter

has become a scrap of paper. They are increasingly susceptible to Russian blandishments, propaganda, and compulsions.

Within a short time Russia probably will have the atomic bomb; thereafter she can wage aggressive warfare at the will of her dictator; whereas a republic must have public support for the declaration of war. That support will not develop nor can we engage in warfare until the enemy has committed an "overt act." In the next war—the atomic war—that "overt act" may be a blow of such terrific impact as to determine the issue and win the war.

War with Russia is not inevitable; but, if we are to avoid destruction, we must recover and increase our internal strength. Continued drift toward national disintegration encourages the disintegration of our republic, the end of freedom everywhere, and the arrival of a dark age of indefinite duration.

Where do we go from here? What can you and I do about this frightening dilemma? In attempting to answer such questions we can only submit a few very simple thoughts, to be accepted or rejected as you may elect.

Our national faults simply are the multiplied reflection of our individual weaknesses, which are: indifference and complacency. If our local communities and our states are not well governed, our nation cannot be. In this republic we, the people, have all sovereignty, all power of reform. Regeneration, like charity, must begin at home.

The answers to these two questions—where do we go from here, and what can you and I do about it?—are problems of individual conscience—of how much personal effort and sacrifice you and I are willing to contribute.

The signers of the American Declaration of Independence were so wholly devoted to the cause of freedom that they risked all they held dear. Listen again to the closing sentence of that immortal document:

"And for the support of this Declaration, with a firm reliance on the Protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes, and our Sacred Honor."

What more have men to give? What comparable pledge can any of us offer to preserve what they bequeathed to us?

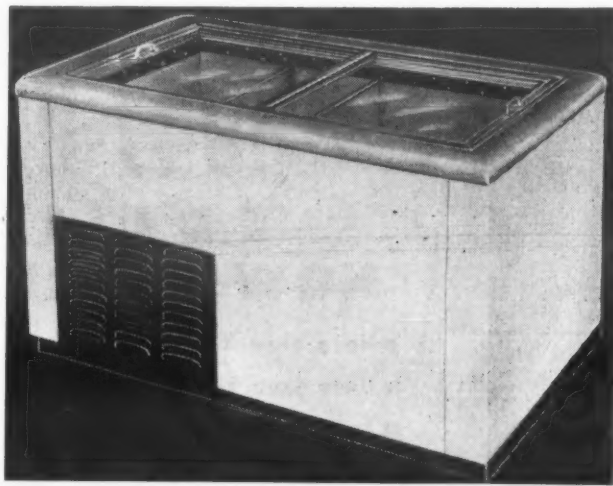
Such questions are of the essence. They can be resolved only amongst each of us and his own conscience.

**B.A.C.
EVAPORATIVE
CONDENSERS**

BALTIMORE AIRCOIL CO., INC.

402-08 Colvin St. Baltimore 2, Md.

A SMALL BOX—with all THE BIG FEATURES



Short of space? Here's a box especially designed for the "small volume" frozen food retailer. Compact—yet packed with all the features of a large cabinet, this box is short in size, long in quality and construction.

10 CU. FT. SELF CONTAINED
HEAVY GAUGE STEEL
CONSTRUCTION
2 SLIDING GLASS DOORS
5 INCHES HYDROLINED
INSULATION
SAVES EXTRA INSTALLATION
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★ TUBING WRAPPED ON
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★ IMMEDIATE DELIVERY

Write for full details

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WESTINGHOUSE WATER COOLERS...A BIG MARKET FOR YOU

Westinghouse now offers to its dealers, in one complete package, all the materials needed for a strong promotional activity:

- Selling Folders, "Where Can I Get a Drink of Water?". Excellent to use as a self-mailer for your direct-mail activities, or as a selling book to use when talking to the prospect.
- Complete Catalogs, containing a separate specification sheet for each Westinghouse Water Cooler, plus complete "Application Data" for each.
- A Promotion Guide. This is an eight-page handy selling help packed with marketing information, a complete display of promotional literature, suggested direct-mail letters, newspaper ads and product cuts.

Contact your local Westinghouse distributor for these new and exciting marketing helps, available now under one form number 7WC-2301 for your convenience in ordering.

THEN...sell this big moneysaving feature

1. Standard One-Year Warranty on the Complete Water Cooler.
2. Additional 4 year FREE REPLACEMENT of the Hermetically-Sealed Mechanism. During these four years, if the Hermetically-Sealed Refrigeration Mechanism fails, Westinghouse replaces it at no cost to you. The Westinghouse design principle makes this possible.

For details about the availability of Water Coolers, write to Westinghouse. We will have the distributor in your territory call directly on you to present complete franchise information.

Westinghouse Water Coolers
WITH THE 5-YEAR PROTECTION PLAN

Plants in 25 Cities... Offices Everywhere

WESTINGHOUSE ELECTRIC CORPORATION • APPLIANCE DIVISION • SPRINGFIELD 2, MASS.



PACKAGED UNIT DEMANDS CAREFUL ENGINEERING

Avery Engineering Co.
Cleveland, Ohio

Editor:

I am terrified at the implications in your editorial in the July 28 issue of AIR CONDITIONING & REFRIGERATION NEWS, called "Don't Be Afraid of Air Conditioning, Mr. Dealer."

Most of the serious mistakes, most of the careless work in air conditioning has been done by dealers or salesmen who did not have the proper "fear," or shall we better say, "respect for" air conditioning! We have seen a parade of failures in this business of those who were not sufficiently fearsome.

I certainly agree with you that there is a tremendous market for air conditioning of the packaged unit type, but just because it comes in a package does not mean it can be sold without engineering. We find that the room cooler business has to be even more carefully engineered than the central station business.

For one reason, you are working direct with the customer who has no professional advice and generally no previous experience. He is therefore easily sold and more easily disappointed. A small room cooler package leads into the larger 3 and 5 ton self-contained unit to which you add ducts. The question of outside air for ventilation is too frequently neglected.

I recall my arguments with the manufacturers of these so-called store units who insisted no outside air was needed—well, if you want them to stink, just leave out the outside air!

I am all for your sales slogan—"Air Conditioning for Health." I have always felt the health angle was much more important than the comfort. Here again, we should hang out the warning signals. When you are air conditioning for health, you doggone well better make it healthy!! That means no draft, no shock, no dirt, no over-heating in winter, and again these things require careful engineering.

The future of this industry depends on satisfactory jobs, not simply quantity sales, and if you want to know a good reason why these big name manufacturers are not building small units, it is because of the "whupping" they got just before the war when they tried to sell their so-called packaged units without engineering.

Now these manufacturers have a little more respect for the business, so we probably should congratulate them rather than criticize.

LESTER T. AVERY, President

ARIZONA ASKS SHARE OF COLORADO RIVER FLOW

Fannin's Gas & Equipment Co.
Phoenix, Arizona

Editor:

We are faced with a very serious situation here in central Arizona. Basically, we are dependent upon an agricultural economy, and if we do not get water from the Colorado River in the next few years, agriculture, on the whole, will suffer drastically . . . and so will almost everything else in the Valley of the Sun . . . business, commerce, and industry.

This is a long story, but we have given it quite a bit of our attention, and I am convinced that not only does Arizona have a just and clear claim to a portion of the firm flow of the Colorado River, but also that Arizona's use of this water will not hurt any other state and will be of great national benefit. Legislation has been introduced in Congress in the form of Senate Bill 433, and if it is passed we will get our share of the water which we so desperately need.

I would greatly appreciate it if you would take the necessary time to request your Senators and Representatives in Congress to carefully consider this matter and if possible, support the measures proposed in favor of Arizona's using its share of water from the Colorado River.

ERNEST FANNIN

INSTALLATION PHOTOS TO GIVE SALESMEN POINTERS

United Refrigerator Mfg. Co.
Sales Division
350 Robert St.
St. Paul 1, Minn.

Editor:

Inasmuch as the attached letter mentions your report on a survey of appliance salesmen, I felt you would be interested in receiving a copy.

I was impressed with the message of your report and it led me to write our distributors for their cooperation doing something to encourage more effective selling on everyone's part.

Your column is always interesting and is the first to be read when REFRIGERATION NEWS hits my desk. So keep up the good work.

MEV S. OLSEN,
Advertising Manager
Retail Salesmen

Dear Friends:

Recently, in his excellent column, INSIDE DOPE, Taubeneck of REFRIGERATION NEWS has been giving us the low-down on the inefficiency of retail salesmen.

Manufacturers, distributors, and dealers are probably as much at fault as the retail salesmen so here's a constructive suggestion.

For example, one of our distributors is selling the Walk-in-ette (6 ft. x 6 ft. x 6 ft. 6 in. metal lined Walk-In) to dairies for bulk station depots. Another is selling fish markets where the Walk-in-ette serves as a storage cooler for flaked ice and in combination with the ice machine provides ice flakes at less than a dollar per ton.

We are writing both distributors for glossy prints of one of these installations and also letters of recom-

mendation to accompany same. Upon receipt of glossy prints and letters, we will convert same into 8½ in. x 11 in. planograph sheets, with pictures on one side and photo-stats of the letters on the other side.

Enough of these will then be printed so every salesman who plugs United equipment in the U. S. A. can carry one in his sales kit and thus be prepared to make dairy and fish market sales.

With United distributors in every state, if all would send in just one glossy print of a favorite or unique application accompanied by a letter from the purchaser, we would soon place in the hands of every salesman the best ammunition we could give him in creating and closing sales.

This is one Kold Facts letter which solicits a reply as we would like to know if you will go along with us on this proposal.

If every one responds, we'll have several hundred testimonials to release and this certainly will point the way to new contacts and greater efficiency.

So please drop me a line at your earliest convenience and oblige.

Yours very truly,
MEV S. OLSEN,
Advertising Manager

AMERICA IS APATHETIC TO COMMUNIST MENACE

Chicago, Illinois

Editor:

Your editorial of March 24, 1947, "History is Being Made While We Sleep," is a real honey.

The American public, in general, is too apathetic regarding the communist menace.

A. F. HOESSEL

ELECTRIC MOTORS AVAILABLE

Type CS and shaded pole, 1/200 through 1/2 HP available now direct from manufacturers. Will build to your specifications. Send firm order year's requirements with complete detailed specifications. Brochure of standard models available.

Consolidated Associates, Inc.
P.O. Box 3908, Strathmore Station
Detroit 27, Michigan

HEAT TRANSFER EQUIPMENT

MARLO
COIL COMPANY
SAINT LOUIS, MISSOURI

TOPS IN WATER COOLERS

You get the best in thirst-quenching convenience with OASIS. Built by EBCO, they're backed by 20 years of water cooler leadership.

THE EBCO MFG. CO.
401 W. Town St.
Columbus 16, Ohio



"A SURE HIT"

It's bound to be a sure hit for any dealer looking for an opportunity to raise his sales average. FOGEL'S Dry Storage "Bottled Beverage" Cooler out hits all other coolers in dealer sales because it is . . .

1. Constructed of durable, all-welded steel.
2. Economical and efficient to operate.
3. Dry, clean, and modern.
4. A real space-saver.
5. Heavily insulated for complete customer satisfaction.
6. Engineered for heavy usage in all climates.

The FOGEL Dry Storage "Bottled Beverage" Cooler has outstanding eye appeal . . . eye appeal that means sales. It is so attractive that it can be used out in the open as well as under a bar. Feel welcome to write for further information concerning these, or other, FOGEL Quality-Engineered refrigeration items.

Now Available for Immediate Delivery

One franchise gives you a complete commercial refrigeration line.

FOGEL REFRIGERATOR COMPANY
5400 EADOM STREET • PHILADELPHIA 37, PA.

Quality manufacturers, for almost one-half century, of Display Cases, Reach-Ins, Walk-Ins, and Freezers.

In making Restrictor Tubes 10% MAY EQUAL 34%

Precise rate of flow through capillary and restrictor tubes is necessary for continued and accurate functioning of indicating, recording and control instruments. In the production of such tubes, normal tube tolerances are far too generous. Suppose, for instance, that the specified rate of flow calls for a tube I.D. of .010": If the bore were to be increased as little as one thousandth of an inch, or 10%, the rate of flow of nitrogen under 100 lb. pressure would be increased by 34%!

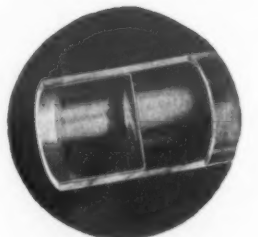
Little wonder that, in the manufacture of Anaconda Capillary and Restrictor Tubes, every precaution is taken to assure dimensional precision and smoothness and cleanliness of inside surfaces. The final step in this long series of quality controls is the "Flowrator" test, illustrated above, which helps us to meet the most exacting gas or liquid flow-test specifications.

THE AMERICAN BRASS COMPANY—FRENCH SMALL TUBE BRANCH

Subsidiary of Anaconda Copper Mining Company

General Offices: Waterbury 88, Connecticut

In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.



Precision-made tubes in Copper, Brass, Bronze and Copper-Nickel Alloys; in sizes from .015" O.D. to 1" O.D. with wall thickness down to .004"; round, square, or irregularly shaped; in coils, straight lengths or special forms. Bourdon tubes, thermal expansion bulbs. And, of course, Anaconda Dehydrated Copper Refrigeration Tubes with the famous Cup Seal®.

Patent Applied For



Anaconda Precision-Made Tubes

see your "DETROIT"

WHOLESALE

for
Expansion Valves
Solenoid Valves
Controls

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DETROIT LUBRICATOR COMPANY General Offices: 5900 TRUMBULL AVENUE
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Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION
Canadian Representatives—RAILWAY AND ENGINEERING SPECIALTIES LIMITED, MONTREAL, TORONTO, WINNIPEG
"Detroit" Heating and Refrigeration Controls • Engine Safety Controls • Float Valves and Oil Burner Accessories
"Detroit" Expansion Valves and Refrigeration Accessories • Stationary and Locomotive Lubricators
EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

L. B. Marsh Forms 5 New West Coast Corporations

LONG BEACH, Calif.—Five new California corporations have been formed by the Marsh interests of Long Beach. L. B. Marsh Allied Refrigeration of Long Beach is capitalized at \$40,000, and the directors are: L. B. Marsh, Stewart Bell, and Agatha Kutter, all of Long Beach.

L. B. Marsh Electric Appliances of San Diego, capital not shown, has the following directors: L. B. Marsh and Agatha Kutter of Long Beach, and R. J. Moran of San Diego.

L. B. Marsh Electric Appliances is a Los Angeles County corporation with a capital of \$15,000. Directors are: L. B. Marsh, H. C. Wade, and Agatha Kutter, all of Long Beach.

L. B. Marsh Electric Appliances is Santa Ana, Calif., has a capital of \$50,000 and has as directors L. B. Marsh and Agatha Kutter of Long Beach, and Henry Williams of Santa Ana.

L. B. Marsh Electric Supplies of Long Beach has a capital of \$110,000. Directors are: L. B. Marsh, D. F. Hydrick, and Agatha Kutter.

Lehigh Mfg. Co. General Sales Meeting Held In Hershey, Pa.

LANCASTER, Pa. — A general sales meeting of the Lehigh Manufacturing Co. was held at the Hotel Hershey at Hershey, Pa., on Aug. 12-14, according to J. C. Miller, general manager. All phases of sales promotion, export, advertising, and engineering were discussed, he said.

Dealer Surprised When Air Conditioners Outsell Radios In Air-Cooled Display Room



While a customer dials an expensive console in the Hayes-Sammons Appliance Store, her friend pays more attention to the air conditioner at left. Result: two air conditioners were sold—but no radio.

MISSION, Texas — When Frank Van Ness, manager of Hayes-Sammons appliance store here, set up a separate room to display his higher priced radios, he air conditioned it with a 3/4-ton Carrier unit.

Result: He sold more air conditioning units from that room than he did radios.

Mr. Van Ness' original idea was to create a comfortable, homey room to show off the radios and to concentrate the customer's attention on them.

What actually happens, Mr. Van Ness explains this way: "As the customer is brought into the envi-

ronment, the air conditioner is not on her mind. She is not being sold. She will, therefore, sell herself. At least, that has been our experience here.

"When she sees and is able to enjoy the comfort, she immediately becomes a customer."

Mr. Van Ness added that even though the entire store and offices are air conditioned, customers notice the special unit in the radio sales room and comment on the store's use of it there.

The radio display room is 12 by 18 ft. and is set up to the rear of the store, Mr. Van Ness said.

Orlando Store Finds Accent on Humidity Drop Is Key to More Package Unit Sales

ORLANDO, Fla.—Package room conditioners are "leading the way" in the outside selling plans of Britt's, franchised General Electric dealership here, which puts the sales accent on humidity rather than temperature reduction.

H. Merritt Britt and Roy Wininger, who opened this largest appliance dealership in central Florida last January, got the project under way two years ago when they merged two stores, set up a service department, and were able to win G-E franchises through presenting a well-rounded operation.

Package conditioners, which Britt's carries in 1/2, 3/4, and 1-ton units, have proven an excellent introduction for the new store, according to Mr. Britt.

"The first thing we did was to train our salesmen to present the package conditioner on the basis of how much humidity it can decrease, rather than the over-all temperature which it will maintain in the home," he said. "Recognizing the unusually high relative humidity prevalent in the Orlando area, better than 75% at all times, we have carefully selected only those room conditioners which show larger evaporative condenser capacity."

"High humidity has always held back the low-power room conditioner in the past, but, with sufficient evaporative capacity, we are able to demonstrate to customers that the room conditioner will keep them comfortable, even though the temperature reading shows only a few degrees difference than outside."

Britt's outside salesmen, backed up with an excellent stock of package conditioners, are calling on

wealthy citrus growers, home owners, and professional men in the Orlando district.

"Every home installation sells many more," Mr. Britt pointed out. "For example, we recently installed one in the bedroom of a home, from which more than a dozen others have been sold. Also, we have made an effort to locate people suffering from asthma, because room conditioners, with the proper filters, show a great deal of relief for these patients. We have also featured them for people suffering from arthritis, and respiratory diseases of all types."

A lot of room conditioner customers have been sold on a "walk-in basis." Mr. Britt keeps in his office a 1/2-ton window unit so mounted that it can be tilted downward. He enjoys taking a prospect back, tilting the conditioner, and showing how as much as a half of pint of water collected from the atmosphere can be poured out.

"We're selling comfort rather than temperature decrease," he summed up, "and I don't believe there is much limit to package conditioner sales possibilities in this area."

Britt's sales staff of six men is backed up by nine expert refrigeration and General Electric service mechanics, who will cover Orlando and surrounding communities. The sales territory has been divided into six sections, each of which gives an outside salesman a "potential" of \$50,000 in appliance sales per year.

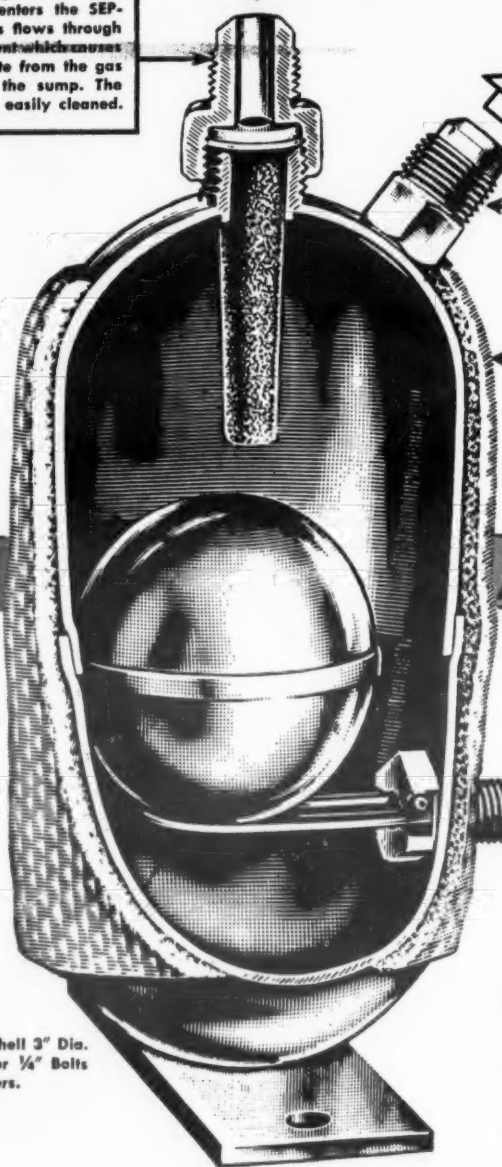
In addition, the mechanics, all of whom work outside at least part of the time, are "bird-dogging" for prospects. They are paid 2% commission on sales.

LOWEST PRICE
ON THE
MARKET

SEP-RETURN

AUTOMATIC OIL SEPARATOR AND RETURN

Oil-laden hot refrigerant gas from the compressor enters the SEP-RETURN. The gas flows through the Poronze element which causes the oil to separate from the gas and trickle into the sump. The filter-separator is easily cleaned.



The gas now free of oil leaves the SEP-RETURN through this exit port on its way to the condenser.

Steel shell of SEP-RETURN is insulated with sheet asbestos cover to improve efficiency.

Top and bottom halves of shell are joined by silver brazing after assembly.

When enough oil accumulates in sump, float ball raises and opens needle valve permitting oil to return to compressor crankcase.

SEP-RETURN*
PAYS FOR ITSELF

This amazing SEP-RETURN unit is easily installed and pays for itself in a matter of months by reducing the electric power bill and providing more efficient refrigerating. On new jobs the SEP-RETURN makes it possible to use smaller compressors.

IT SAVES MONEY—IT MAKES FRIENDS

7 1/2" High. Shell 3" Dia.
Base Plate for 1/4" SAE Bolts
on 3/4" Centers.

Inlet and Outlet 3/4" SAE. Oil Return 1/4" SAE.
For Use on Systems Up to one-third H.P.

No. 400 List Price \$800

Buy from your wholesaler

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HASCO

... now makes suction and discharge valve reeds for leading makes of Hermetic units. Look to Hasco for the best in both conventional and hermetic type compressor parts.



WRITE FOR ILLUSTRATED CATALOGUE AND PRICE LIST

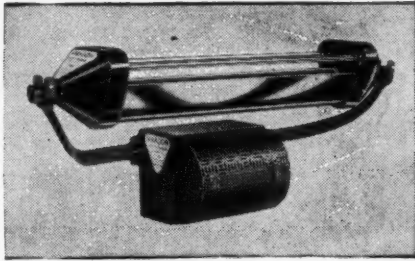
HASCO, INC.
GREENSBORO, N. C.

What's New

Dough Retarder Box Accommodates 40 Pans

CLEVELAND — A new 45-cu. ft. refrigerated baker's dough retarder is now being produced by the Cleveland Refrigerator Co. here on a three-week delivery schedule, William Drosd, president, has announced.

Marketed under the "Miracool" trade name, the dough retarder features slides to accommodate 40 pans



This new germicidal unit combines an ultra-violet lamp and an ozonator.

The unit, designed to deodorize and germicidally purify air, combines an ultra-violet ray Sylvania electronic lamp and a built-in sanitizer.

The latter, on which patents are pending, is the only brush type ozonator yet developed, according to the company.

Able to ionize the air sufficiently to destroy odors without irritation to person or animals, the sanitizer can be used continuously with safety, the manufacturer declares.

4-In-1 Appliance Tester Made by Kelvinator

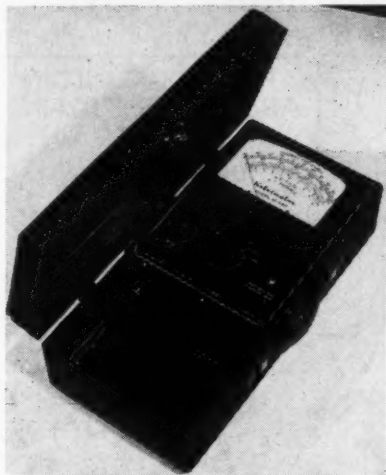
DETROIT—A new 4-in-1 Appliance Tester which checks voltage, amperage, and two separate temperatures all at one time is now offered by Kelvinator Division of the Nash-Kelvinator Corp.

The two temperature readings, which are registered electrically, can be taken in the same or in two separate refrigerators, home freezers, display cases, reach-in cabinets, etc.

The entire instrument, weighing less than 10 pounds and compactly built into a special carrying case, makes it possible for servicemen to make accurate temperature adjustments and obtain precise electrical circuit analysis.

Developed in collaboration with Kelvinator service engineers, the new tester is manufactured by J. B. T. Instruments, Inc., New Haven, Conn.

Light & Compact



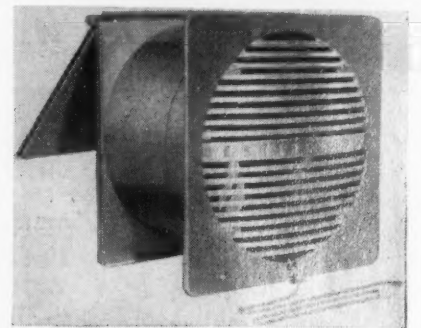
Two temperatures plus current can be checked with this new Kelvinator appliance tester.

Westinghouse Ventilator Has Insulated Door

MANSFIELD, Ohio—A new home ventilating fan with an insulated outside door is announced by the Westinghouse Electric Corp.

Designed primarily for installation in the wall of a kitchen or home laundry, the new Powaire home ventilator can move 350 c.f.m. This air-moving power is more than sufficient to change the air in a kitchen as large as 9 by 12 by 7 ft. every two minutes.

To prevent passage of heat through the opening when the fan is not in use, the outside door is protected with an insulating board and is kept tightly closed by a strong spring. Unclipping a chain starts the fan and simultaneously opens the door. When

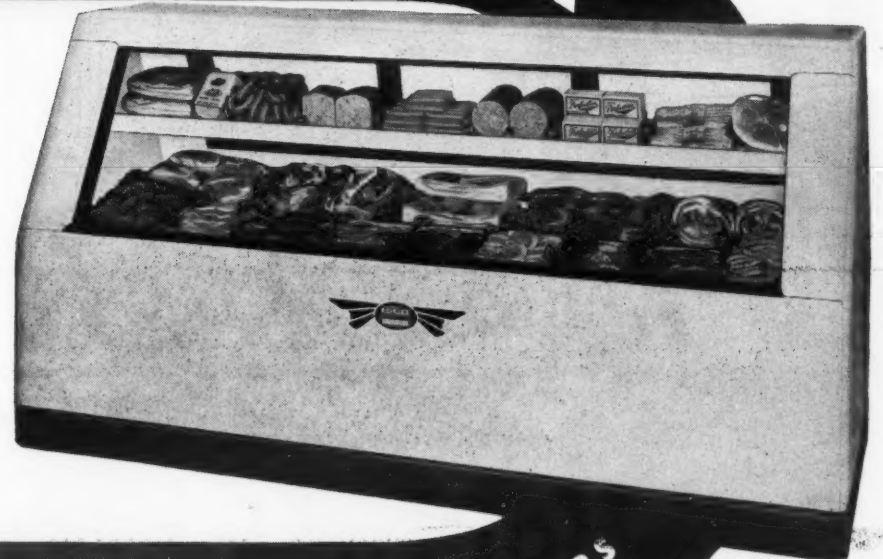


An insulated outer door is featured in the Westinghouse home ventilating fan just introduced.

installed, the fan is concealed in the wall behind a slotted aluminum grille. Blades are 10 in. in diameter, made of steel. Extension accessories are available to make the fan adaptable for any wall thickness.

TRAFFIC CENTER

The meat department is the focal point in food stores. SHERER display cases naturally attract the flow of traffic by making possible outstanding displays of perfectly kept meat.



REFRIGERATED MERCHANDISERS

SHERER-GILLET CO., MARSHALL, MICHIGAN

Sanitizer Combined with Ultra-violet Ray Lamp

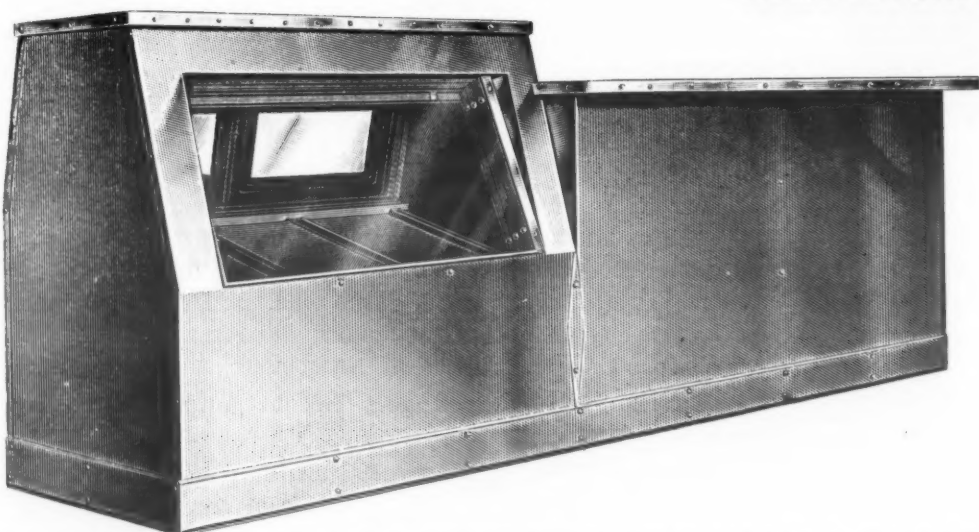
KANSAS CITY, Mo.—The Viragon germicidal unit will kill air borne bacteria that cause food spoilage and mold, its manufacturer, the Viragon Co. here, claims.

Back Again after an Absence of Five Years!

The SOUTHERN COMBINATION Display Case and Dry Beverage Cooler

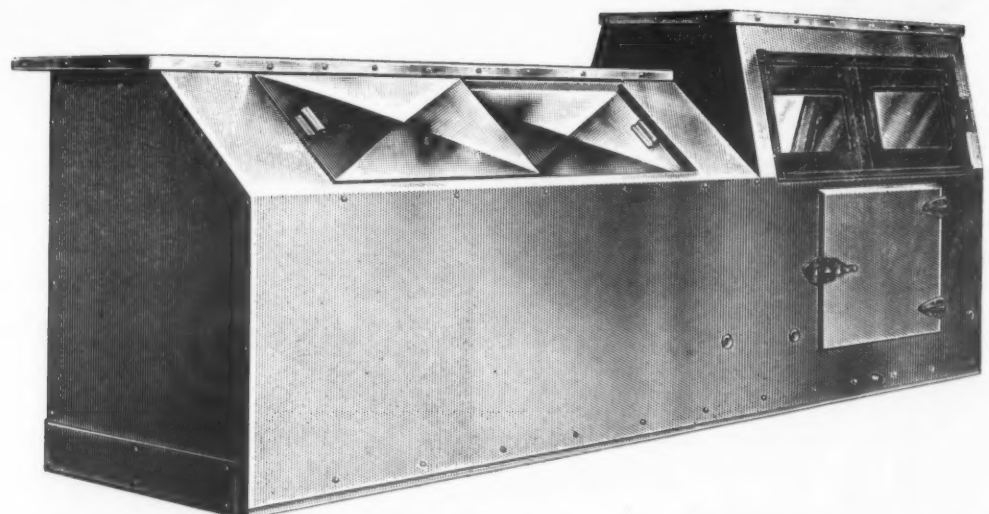
An OLD LINE COMPANY back in production on an OLD ITEM of Refrigeration Equipment—
Your prospects have been waiting for this—and here it is in beautiful Stainless Steel

"SALES APPEAL IN STAINLESS STEEL"



Front view 4' Display Case and 6' Beverage Cooler; may be had with 6', 8' and 10' Beverage Cooler—all ONE PIECE of equipment. Stainless Steel finish backed up with Weldwood Plywood. Inside Display Case is Stainless Steel—Fluorescent lights outside—THREE Glass front. Inside Beverage Cooler 24 gauge copper bearing metal. Two sets of coils—each compartment separate.

(Mezzanine Shelf in Display Case not shown)



Back view 4' Display Case and 6' Beverage Cooler. Top of Beverage Cooler extends over front 6"—Top of Display Case and Beverage Cooler Black Satin finish FORMICA on heavy Plywood, beautiful Chrome Trim around edge of both Tops. Hard Rubber Doors in Display Case—Stainless Steel slide doors in Beverage Cooler with Stainless Steel tracks.

A Complete Line of Refrigeration Equipment by SOUTHERN

Display Cases - Dry Beverage Coolers - Walk-in Coolers - Reach-in Refrigerators

Sold ONLY Through Refrigeration Distributors and Dealers since 1934

SOUTHERN FIXTURE MANUFACTURING COMPANY
Manufacturers
GREENSBORO, NORTH CAROLINA

Established 1934

They'll Do It Every Time By Jimmy Hatlo



It's Time To SELL Again!



SMART—Modern design, fast freezing aluminum tray permanently finished in frosty blue.

CONVENIENT—JIFFY-CUBE offers one cube or a bowlful, quantities can be quick frozen and stored for parties or sick room.

CLEAN—No hands touch the cubes—they pop out without messy dousing in water to loosen.

EASY—Press the dimple and they are out. No sticking. No waiting. They refreeze in a jiffy.

VERSATILE—Ideal for frozen desserts, salads, treats for the kiddies.

ECONOMICAL—Long lasting, reasonably priced. JIFFY-CUBE offers a single cube without wasting a trayful.

FAST MOVING—A highly popular NEW item—plenty of sales appeal and a nice profit.

JIFFY CUBE trays are available in two standard sizes to fit practically any refrigerator. Twelve cube size \$1.95 list. Eight cube size \$1.49 list. Extra cups in dozen cartons \$1.00 list. Usual trade discounts.

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VOLUME 51, No. 16, SERIAL No. 961, AUGUST 18, 1947

'Full Employment' Isn't Enough —We Need More Tools

THE PARADOX is the symbol of our times. More people are employed than ever before. More factories are at work than ever before. Presumably every workman and every machine is working at capacity.

Yet there are shortages of many things we all want.

Wages and salaries have zoomed. Prices have risen even higher, as could be expected. Even so, all of us are having to wait longer for things we want and need. This doesn't seem to make sense.

By hypothesis, full employment and capacity production should pour out goods at such a rate that saturation of needs and wants would be reached quickly. Thereafter, employment should decline, factories close, and a depression arrive.

This is the normal economic cycle.

Soothsayers in Washington and Wall Street have been forecasting that this would happen here for quite awhile. But it hasn't. Why?

Here's one answer:

Our tools are inadequate.

Higher incomes and more people employed have elevated the demand for food, clothing, shelter, automobiles, refrigerators, and television sets to a previously undreamed-of high plateau.

To satisfy these new demands for goods, the individual worker must either tend his machine longer or work it faster (which his union forbids) or be given another machine which multiplies his efforts.

The latter alternative is the one which succeeding American generations have employed for the last 150 years with telling effect. They have satisfied an ever-rising market for a higher standard of living by magnifying muscle-power with machine-power.

To do this, business men have saved money out of profits to buy better machine tools, build bigger factories, and promote their markets through advertising.

At the same time, they have inspired their fellow-workers to do more by inoculating them with a shot-in-the-arm serum of the American Dream. (Which can be defined as "the opportunity to rise from rags to riches.") This was the formula for making the American Dream come true: work harder, save more, and invest your surplus in the future of America.

But times have changed. What made the father rich is scorned by the son.

Nowadays, if a man works harder than necessary, his union bosses will slap him down. Or if he lives frugally and saves money, the government tax collector will take most of his savings away from him.

That's why productivity is low, and why new capital-to-expand-labor-output-via-machines is confiscated before it gets a chance to help either the investor or the worker.

Result: stagnation and frustration and shattered dreams.

All of us want more. We'd love to live more extravagantly. But either we aren't willing to forego present pleasures in the hope of earning future comfort and security, or we are discouraged from working harder and saving money by the politicians who rule our lives.

Shortages of food, clothing, and high-standard-of-living home appliances can be rectified only through higher production. But when Big Government and Monopolistic Labor Unions conspire to slow down individual efforts, and when socialistic tax policies prevent entrepreneurs from saving money to buy machine-power tools, none of us can get ahead.

That's our situation today. Isn't it time to reappraise our so-called "social" thinking?



Depend on Your **REFRIGERATION EQUIPMENT WHOLESALER...** *... For First-Hand News on New Products*

Progressive, alert to products and processes that offer improved service to his customers, your Refrigeration Equipment Wholesaler is first with new-product news. He stands high in the confidence of today's engineers and manufacturers of every type of equipment or supplies. For this reason he always gets advance news of all new developments "hot off the griddle" — developments which it is his pleasure and privilege to quickly pass on to constantly help you to easier and better installation and servicing.

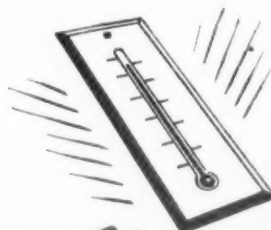
Your Refrigeration Equipment Wholesaler knows what is best in new equipment. Look to him for advice on the latest aids to better refrigeration and air conditioning.

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EXPORT DEPT., 13 E. 40TH STREET, NEW YORK 16, N. Y.



Summer Service Tips

Watch your systems for irregularities caused by moisture and dirt . . . Avoid them with a TRAP-DRI Drier-Filter-Strainer.

Check This New Development

NEW LARGER CAPACITY MODEL 410

TRAP-DRI**DRIER-FILTER-STRAINER**

Ask your Refrigeration Equipment Wholesaler about this new Model 410 TRAP-DRI. With a nominal rating of 3 to 5 tons Freon, this new Model 410 offers famous TRAP-DRI system-protecting benefits for larger refrigeration systems—as well as for those smaller systems requiring larger capacity drier for preliminary clean-out. Highly efficient, adequate charge of Silica Gel (53.7 cu. in.) stops all moisture, while effective filter-strainer traps all impurities (as small as 5 microns) — for improved system operation. Drying agent may be removed and replaced, or dried and re-used. Write for new bulletin.

**DEPENDABLE***Refrigerant Valves*

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE . . . RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS

Bone Discoloration In Frozen Poultry Called Safe But Unsightly

BERKELEY, Calif.—Although discoloration in bones of frozen poultry does not involve a health hazard or affect flavor and nutritive values, The Refrigeration Research Foundation suggests every effort be made to reduce the condition because it "undoubtedly does affect consumer approval."

"The best recommendations available at present," TRRF reports, "are thorough bleeding, rapid removal of animal heat, and reduction of delay in freezing."

Discoloration, which usually appears after a few weeks of storage, is due to seepage of blood pigments through the bone following disintegration of blood cells during freezing.

A deep reddish brown in color, the condition is said to be especially common with young chickens because they are growing and the blood factories provide a plentiful supply.

"Some research is under way, especially at several State Experiment Stations, and we will doubtless have more definite knowledge later," the Foundation reports.

Stearns, York-Shipley Sales Executive, Dies Suddenly

YORK, Pa. — Lester O. Stearns, residential division sales manager of York-Shipley, Inc., died of a heart attack early this month at work.

Small Quotas of 'Staples' Cited as Main Cause For Closing of 2 St. Louis Frozen Food Stores

ST. LOUIS—The recent closing of the two frozen foods stores operated by Boark Products Co. in Clayton and Webster Groves, both suburbs of St. Louis, was prompted by an insufficient supply of staple frozen foods, according to partners Wayne Boland and George Clark.

Acting as distributor and retailer for three major lines of home freezers, both for commercial and domestic use, Boark Products Co. nevertheless preferred to be known as "primarily in the food business," according to Mr. Boland.

The two stores, both built in Williamsburg Colonial style in better-income residential districts of the city, were models of efficiency, incorporating separate appliance showrooms, large walk-in refrigerators for forward stock of frozen foods, etc.

The Boark concern introduced many innovations into the St. Louis market, including the plan whereby customers were furnished home freezers on a rental basis, with a \$50 inventory of frozen foods, which was checked and refilled on a weekly basis.

Closing of the stores, however, came about due to the fact that frozen foods manufacturers and distributors were attempting to spread their distribution "too thin," according to the partners. "We felt from the outset that we were not given enough recognition as a 100% frozen foods store," Mr. Clark said.

"Therefore, independent grocery

stores with a single frozen foods case were given almost the same quota of chicken, popular fruits, berries, etc., as we were. Although we made every effort to sell our suppliers on the fact that we carried nothing but frozen foods, we were still struggling along with a pitiful small quota of the very frozen foods which were most likely to bring customers in."

Closing of the two St. Louis stores followed closely the discontinuance of a former Boark store built in Sedalia, Mo. In this railroad terminal central Missouri city, however, frozen foods were simply "too new and too radical" for most small-town housewives, according to Boark's experience.

Carey Named Sales Manager Of Appliance Distributors

CHICAGO — Clarence S. Tay, branch manager of Appliance Distributors, Chicago, has announced the appointment of Thomas C. Carey as sales manager.

Carey was former district sales manager for Philco in the Missouri region. Previous to this, he was connected with Philco in Chicago.

Booklet Describes Filters

LOUISVILLE, Ky.—The application of replaceable type air filters for ventilating and air conditioning systems is explained in an eight-page booklet being made available by American Air Filter Co., Inc., here.

Descriptions and illustrations of each type filter are given, along with instructions for maintenance and detailed engineering and installation data.

Proper Refrigeration Vital for Success In Pre-Packaged Meats, Says Market Head

NAPA, Calif. — While pre-packaged fresh meats can be extremely profitable in the right surroundings, they can also represent a dismal loss to the food retailer who does not plan his refrigeration properly, according to J. W. Dickie, head of the Pickit-N-Pay Food Store here.

Mr. Dickie, who has built one of the largest self-service meat departments in northern California, stresses that the food operator must first gauge the minimum amount of pre-packaged meats which he must keep on display, and provide sufficient open refrigeration to safeguard as much as two and a half times that amount under emergency conditions.

"Insufficient refrigeration often means that customers who expect self-service convenience arrive to find the supply exhausted," Mr. Dickie pointed out. "At the same time, the dealer may buy two or three open refrigerated cases and find that he has been too optimistic. Starting out on a small scale with one 6-foot refrigerator, and studying the effect upon customers is the best possible guide."

He has set up nine basic "needs" for this type of operation. They are:

1. Enough capital to buy premium grade meats, pay the expenses of packaging, and absorb potential losses.
2. Plenty of time and ability to package meats properly to prevent spoilage and make the most of refrigeration.
3. A market of "modern" housewives, who will trust the store's judgment in pre-cutting of meats.
4. Maximum quality at all times.
5. Expert knowledge of cold-air circulation on display to prevent spoilage.

6. Over-capacity refrigeration "to keep meats in the best possible condition."

7. Willingness to spend extra time in studying the trends to one type of meat or another.

8. A display spot which does not present too much heat load for the refrigeration, yet is plainly visible to every entering customer.

9. Recognition of the fact that open, self-service refrigeration has many limitations, and that the fresh, pre-cut meat operation must be conducted within them.

Advantages of this method of selling are a far better choice for the customer, the ability to sell customers after union butchers have closed up shop, and attracting many new regular patrons, according to Mr. Dickie. Handled properly, he believes that self-service meats are the "coming thing."

Conlon-Moore Prepares Lower-Priced Models

CHICAGO — Conlon-Moore Corp., producer of home appliances, has announced completion of engineering on several new products and models for marketing as soon as material and labor shortages smooth out. Diversification is the order of the day at Conlon-Moore, according to B. J. Hank, president of the corporation, plus expansion of production capacity.

Lower-priced models of electric ironers, washing machines, automatic washers, a new smokeless coal heater, oil space heater, clothes dryer, vacuum cleaner, and a line of radios are included in the new expansion program.

Available NOW!

A New and Finer
**DOUBLE DUTY
DISPLAY CASE**
By JORDON

★ COMPLETELY REFRIGERATED

—with extra large cold storage space and convenient, sliding service doors.

★ EXTRA HEAVY INSULATION

1/3 more than average cases



SALES BOOSTER for TODAY'S BUSINESS

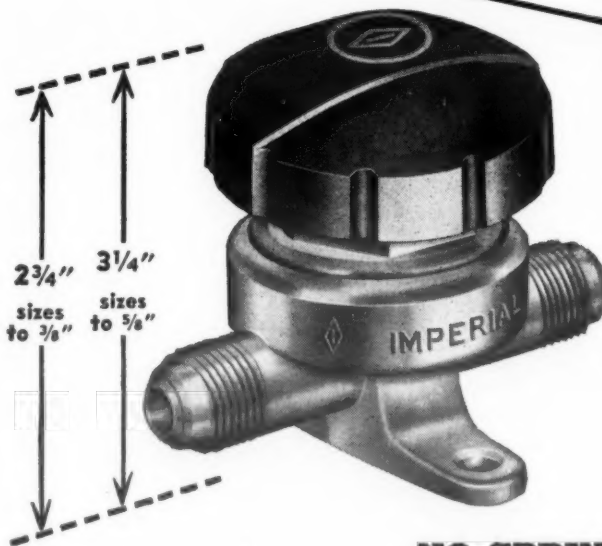
Whichever way you turn you'll find a ready prospect for this handsome, all welded steel case.

*Double duty coils in display and storage areas provide ample, safe cooling. Brilliantly illuminated by full length fluorescent lighting. *Priced right because of our large manufacturing facilities.

Write, wire or phone for SPECIAL MODEL 55 50 BULLETIN

JORDON
AMERICA'S MODERN COMMERCIAL LINE
JORDON REFRIGERATOR CO.
Sales Division
235 N. BROAD STREET, PHILADELPHIA 7, PENNA.
PLANT: PHILA., PA. CABLE: "JORDONREF"
LOCUST 7-2913

LOW OVERALL HEIGHT Means Neat, Compact Installations



NO SPRINGS • "EITHER-WAY" FLOW

Extremely low height — another important point of superiority of DiaSeal Valves — is a decided advantage where installations are made in aisles or close quarters.

They offer a minimum of protrusion. In fact, Imperial DiaSeal Valves — in sizes up to and including 1/2" O.D. — can be installed in a 4" conduit box with room to spare.

Other features that make the DiaSeal the outstanding valve for refrigeration service are readily apparent in the sectional view.

Ask for Bulletin 103-REF
See Your Jobber

THE IMPERIAL BRASS MFG. CO., 534 S. Racine Avenue, Chicago 7, Illinois

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Report After 6 Months:

'Froz-In-Flavor Food Store' Finds Freezer Sales Up, Frozen Food Acceptance Lagging

By Phil B. Redeker

SOUTH BEND, Ind. — It was almost six months ago that the "Froz-In-Flavor Food Store," a combination frozen food and home freezer retailing establishment was opened here with considerable fanfare by William T. Miholich, 29-year-old veteran of the armed services. Reporting the event, AIR CONDITIONING & REFRIGERATION NEWS said—

"Some questions about the market possibilities of home freezers, and the chances of a frozen food specialty business, may be answered by the fate of a somewhat unusual business venture that was opened here Feb. 13."

'Some of the Answers'

Six months is not, of course, a long enough time to provide all of the answers, but Miholich, speaking frankly about his experiences, believes he has some of the answers—in the present state of the market.

Over-all, the picture has been something like this:

Home freezer sales have been good, picking up momentum in the middle of the summer. Far more sales, however, are made to those living in the surrounding rural area than to those within the city of South Bend.

The frozen food business has not come up to expectations, a definite fall-off in business coming during the summer months, but Miholich still has high hopes for it, and is continually changing his method of operation and trying new promotion stunts.

As pointed out in the NEWS story covering the opening, the South Bend "Froz-In-Flavor Food Store" would likely prove a fair test because many previous ventures of this sort have been spotted in exclusive suburban or high income metropolitan areas where there might be a "luxury buying" or a "fad interest" to put the store over. But South Bend is predominantly an industrial community with a population of between 100,000-150,000 and the store is located at 505 Lincolnway West, only a few blocks out of the downtown area, and certainly not spotted in any "high income" area.

Buying Habits Established

"We're running smack into the established buying habits of people who are accustomed to doing their own shopping," Miholich said, "and I think that's the big problem of the frozen food store that's trying to compete for a normal cross-section of customers."

"You've got to prove that you can offer better quality at prices that are about the same, and that's kind of



This photo, which appeared previously in the NEWS, (Feb. 24, 1947) shows a portion of the crowd of 3,000 that jammed William Miholich's "Froz-In-Flavor Food Store" opening day. Those at left are picking over his selection of frozen food, sales of which haven't held up too well, Miholich says. The others are inspecting the home freezers which are also sold in the store. This dealer reports that his freezer sales have gained momentum.

tough to do. We're getting some of the economy size—the 5 pound—packages now, and that's helping us somewhat."

There has been a definite summer slump in frozen foods, the South Bend retailer said. The fact that many people raise fresh fruits or vegetables, or find them readily available at lower cost at roadside markets, may be contributing factors.

Frozen Meats Are Problem

One thing that Miholich has about given up on is frozen meats. He is planning on removing the low temperature self-serve case used for selling the meats, some of which he processed and froze on the premises, and substituting a conventional refrigerated meat display case to handle a line of fresh meats.

There are probably a number of reasons why the frozen meat proposition didn't turn out as expected, and Miholich advances the following as a couple of them:

"We couldn't get guaranteed quality in the meats. Locker plants and other nearby sources just couldn't seem to guarantee that you would get the best grade—and people expect that in frozen meats."

"Then there is a funny twist in putting a price label on the frozen meats. The logical way to do it is to put on the price of the complete

package. But people are used to buying meat by the pound, and when they see price of the package which is generally over a pound, it seems big to them, even though you may specify the weight on it."

\$600 Weekly Volume Needed

A store of the size which he operates, he says, really needs to reach a \$600 a week volume before it can start making any kind of decent living for the operator. He has three self-serve cases in operation, and a storage cooler in the basement. The original installation included two 3-hp. and one 2-hp. condensing units.

"It's important to keep the operating cost of the cases as low as possible—preferably around \$5-\$6 per month—as they are a big part of the overhead expense," says Miholich. "Therefore it's important that the store operator be sure that he gets a well-engineered, properly balanced refrigeration system."

Costs Demand Bigger Markup

The South Bend retailer believes that food processors and wholesalers had better do some thinking about giving a bigger markup than the 25-30% figure now prevalent.

There are added costs in frozen food merchandising, he says, which necessitate a greater mark-up for the retailer.

He has been trying all sorts of stunts to promote the business. He sent out coupons worth a certain amount for purchases made in his store, but out of 5,000 sent out, less than 100 were redeemed. A new promotion piece showing savings in the purchase of economy packages may be more effective, he hopes.

Urban Buyers Indifferent

Although he has been generally encouraged by the over-all picture on home freezers, he has been puzzled by the failure to produce more sales within South Bend proper, which should offer a better market than metropolitan areas, since many people have gardens and there are many nearby roadside markets.

One point on which he is not yet clear is the matter of the right size freezer for the city dweller. It can't be one of the larger models, but on the other hand, prospective purchasers are adamant about not wanting one that "might be too small."

Only Sound Fruit Good for Frozen Orange Juice, Research Shows

ALBANY, Calif. — Only sound oranges should be used for preparing frozen juice, it is emphasized in work recently reported from the Western Regional Research Laboratory of the U. S. Department of Agriculture here.

Juice prepared from Valencia oranges damaged by soft rot, that is, having soft decayed spots of considerable size, but lacking visible mold growth, contained 2,500 times as many microbes as juice prepared from sound fruit.

Even after immediate freezing and storage at 0° F. for eight months the frozen juice of the "soft rot" oranges contained far more bacteria.

These tests were made by E. R. Wolford and J. A. Berry of the department's Bureau of Agricultural and Industrial Chemistry.



BEALL 160-WB "Walk-in" FOOD FREEZER

Here is America's finest two-temperature food freezer—a "walk-in" Model with rustproof Aluminum Construction inside and outside. Has 160 cubic-foot capacity—freezing chamber 60 cubic feet at zero—100 cubic-foot refrigerated space at 38° (adjustable). An ideal unit for commercial, institutional and home use.

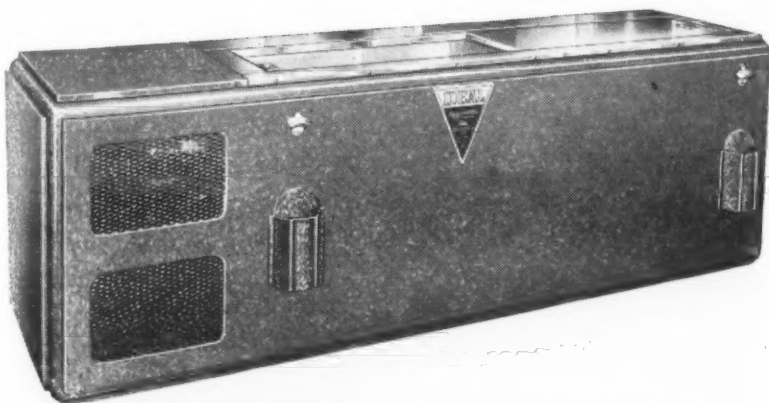
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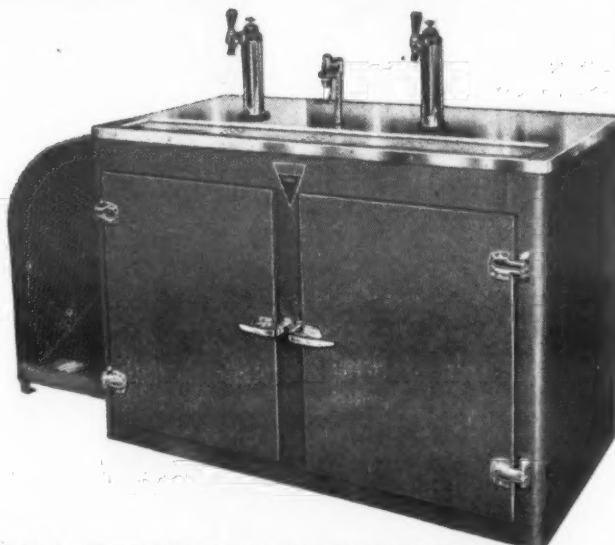
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The patented, unmatched performance of this Draft Beer Cooler is nothing short of sensational. No matter how warm the beer is upon delivery you may draw it instantly . . . and draw it right . . . at any temperature you desire! Its refrigerated faucets, foam control and flusher make it a favorite with customers, breweries and beer distributors. Available in 2 and 3 half barrel capacities, self contained or remote. Fits under any standard bar.

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BULLETIN!

AIR CONDITIONING & REFRIGERATION NEWS announces the first subscription rate change in over ten years. Effective October 1, 1947, the basic subscription rates will be as follows:

1 year\$5.00
2 years\$8.00
3 years\$11.00

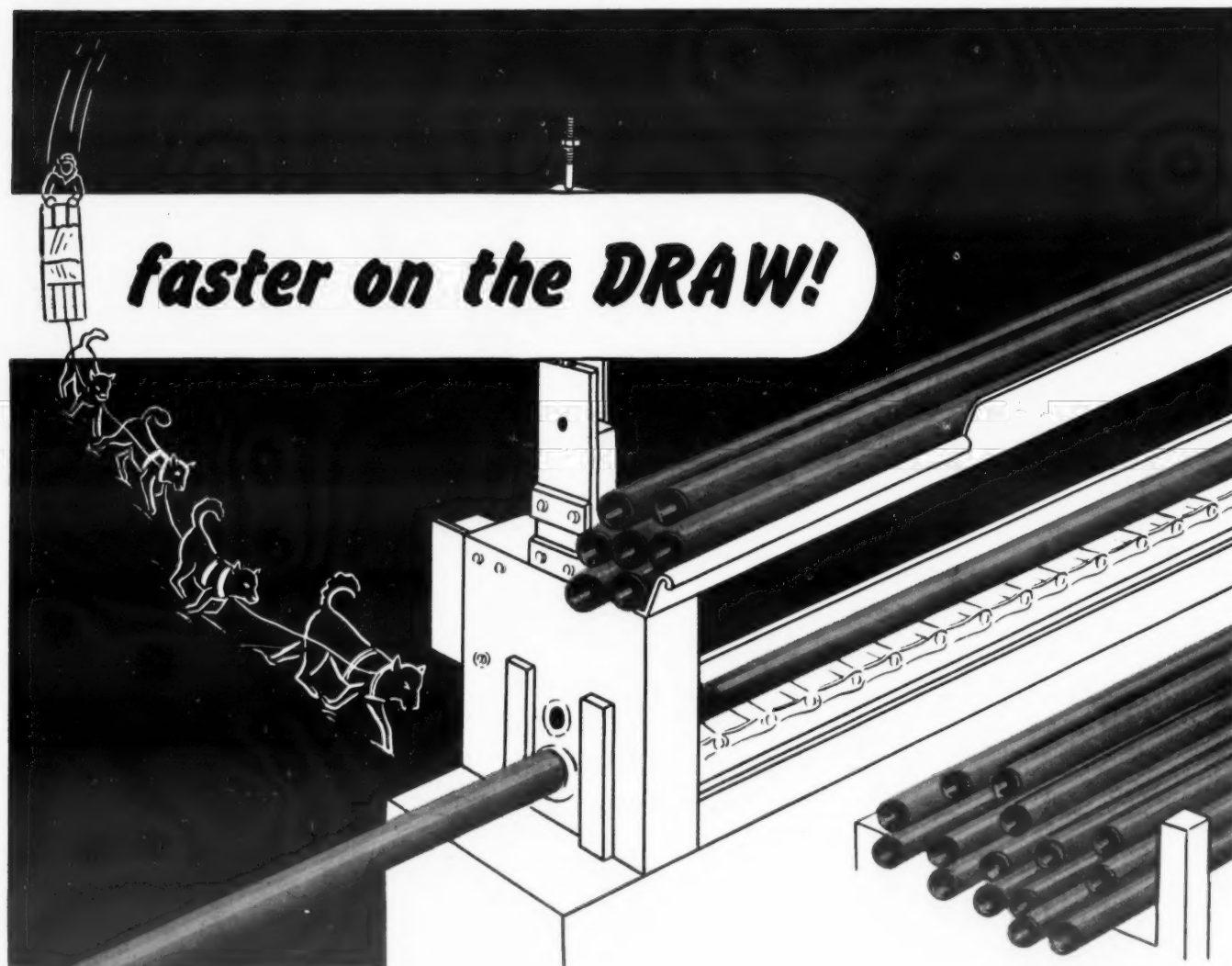
Foreign postage \$2.00 per year extra: includes all except Pan-American Postal Union countries, Canada, and U. S. Possessions.

You are invited to enter your new or renewal subscription order now if you want to save an extra dollar.

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1 to 4 one year subscriptions.....	\$5.00 each
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AIR CONDITIONING & REFRIGERATION NEWS, 450 W. FORT ST., DETROIT 26, MICH.

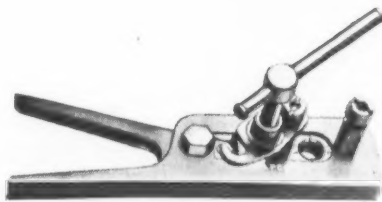


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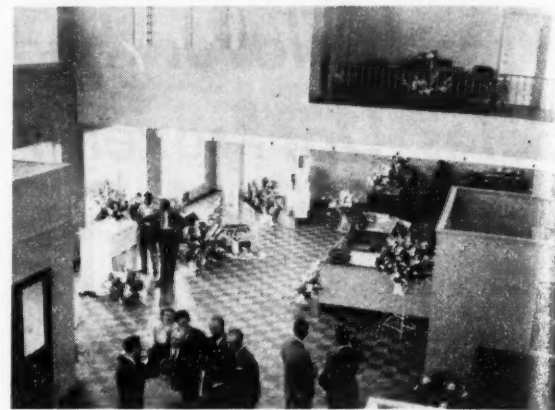
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Lots of Room for Displays and Counters

Photo at right indicates the spaciousness of the Thermal Co.'s ground floor display and counter room due to the concentration of offices on the mezzanine. In addition to the engineering, advertising, and some executive offices located on the mezzanine, space is provided for conference rooms.



Parts Wholesaler's New Building Has 200-Seat Lecture Room In Basement

ST. PAUL—A basement lecture room seating approximately 200 people is cited as an outstanding feature of the new, 100-foot-front building recently opened here by Thermal Co., Inc., parts wholesaler.

An outside entrance and a special commissary to provide for needs of the room permit meetings to be held there without disturbing the normal functioning of the company's business. The hall has already been used by various associations for educational gatherings.

Front portion of the new building, located at 2526 University Ave., is completely air conditioned. The system is automatically controlled and can be proportioned throughout the area as needed, according to H. W. Small, president.

This front section, which is equipped with fluorescent lights, is entirely devoted to a showroom. Interior walls consist of a cream-colored, decorative brick and the floors are laid in an alternate pattern of red and brown asphalt tile.

General offices are located on the showroom floor, with mezzanine on both ends housing the engineering, advertising, and some executive offices.

Marty Grasso, Williams & Co. Salesman, Dies Suddenly

CLEVELAND—Marty Grasso, inside salesman with the local branch of Williams & Co., parts and supplies wholesaler, died suddenly early Aug. 1. Well known in Cleveland area, Mr. Grasso is believed to have succumbed to a blood clot, according to R. C. Whitney, refrigeration manager for the Williams branch.

Cochran Is Asst. Engineer In G-E Erie Laboratory

ERIE, Pa. — Appointment of William H. Cochran as assistant engineer of the refrigerator works laboratory, Erie Works, General Electric Co., was announced here.

Mr. Cochran has been very active in the application of welding equipment and processes to the manufacture of refrigerator cabinets from the time the first cabinets were made here. Upon the consolidation of all refrigeration manufacture in Erie after the war, Mr. Cochran assisted in that part of the retooling program involving welding and brazing.

Smith Joins Carter & Galantin

LOS ANGELES—S. J. Smith has resigned his position as vice president in charge of art and production at John Freiburg, Inc., advertising, to join Carter and Galantin, Inc., point-of-purchase display engineers at 315 W. Ninth St. here.

The firm has made many national displays for air conditioning and refrigeration concerns.

Chase Issues 120-Page Fall, Winter Catalog

CHICAGO — Chase Refrigeration Supply Co., Chicago wholesaler of refrigeration and air conditioning supplies, is now distributing its new fall and winter catalog.

A well-compiled, 120-page book, it strikes a new note in refrigeration catalog design.

Particularly effective is the modernistic laminated cover. It shows a clear photographic view of Chicago's tall buildings and picturesque lake front, with gothic lettering in bold orange and black contrast.

Occupying the fore of the book is a complete alphabetical index. Following in sequence are full-page listings of condensing units, compressor parts, coils, temperature controls, valves, dehydrators, etc.

Wood Conversion Names Moorman to Chicago Office

ST. PAUL, Minn.—A. J. Moorman has been recently appointed assistant Chicago district manager for the Wood Conversion Co., manufacturer of wood fibre products, according to D. M. Pattie, vice president and general manager.

Mr. Moorman joined Wood Conversion in 1936 as a salesman. Later, he served as sales supervisor and industrial sales representative in the northwest district. He is a graduate of the University of Minnesota school of architecture.

Commercial Credit's 6-Mo. Profit Passes '46 Mark

BALTIMORE, Aug. 8—Commercial Credit Co. reports consolidated net income for the first six months of 1947 of \$3,308,556.02 compared with \$1,908,688.81 for the same period in 1946. The net income for the six months ended June 30, 1946, however, included transfer of \$1,100,000 from Reserve for Contingencies which was fully restored during the six months ended Dec. 31, 1946.

The net income for the first six months period of 1947 after providing Consolidated Federal Income Tax Reserve of 40% compared with the same period for 1946 was in the case of the Finance Subsidiaries, \$716,196 compared with \$189,848; the Insurance Subsidiaries, \$501,616 against a loss of \$942,286; and the Manufacturing Companies, \$2,090,743 compared with \$1,561,126.

Airtemp To Furnish Neon Signs For Dealers In New Contract

DAYTON, Ohio—Airtemp Division, Chrysler Corp., has contracted with Neon Products, Inc., of Lima, Ohio, to furnish dealers with Neon illuminated displays for their store fronts as illustrated.

These displays embody the newest sign ideas in outdoor illumination, and tie-in closely with Airtemp national advertising.

- All Steel Construction
- 5 Inches Fiber Glass Insulation
- Fully Rounded Stainless Steel Top
- Rubber Flip Flop Lids
- Separators Between Compartments
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IMMEDIATE DELIVERY
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Sharp Freeze Room Put On Fishing Vessel For Carribean Service

SEATTLE, Wash.—Equipping a 70-ft. steel vessel with full refrigeration for exploration fishing in the Carribean Sea has been completed by the Northwest Baker Ice Machine Co. here at a cost of approximately \$8,000. It is believed to be the first of its kind in the Pacific northwest.

The ship, *Reina Del Caribe*, was built for the Puerto Rico Agricultural Co. by the Long Marine Construction Co., Seattle. Its home port will be San Juan, Puerto Rico. Cost of the vessel, fully equipped, approximated \$145,000.

Function of the ship is exploration fishing to determine what type fishing may be engaged in profitably by vessels in Carribean waters. It was obvious that complete refrigeration facilities would have to be provided if the ship was to remain at sea any length of time.

Its capacity is 75 tons of fish, frozen. Although essentially built along the lines of a west coast seiner, the ship is also equipped for dragging Atlantic coast style, for shrimping, for chum tuna fishing, and, in fact, for virtually any type of food fishing in order its exploratory mission might be carried out successfully.

What makes the refrigeration installation unique is the fact that sharp freeze room is an entirely separate compartment from the storage hold. It has been the general practice in fishing ship jobs to confine refrigeration to one large hold into which fish were placed as they are caught.

On this vessel, the fish will be frozen in the sharp room and then transferred to the storage hold, until the capacity of 75 tons has been reached.

The sharp freeze room has a capacity of 3,500 lbs. of fish, with an area of 480 cu. ft. It is separated from the storage hold by an 8-in. cork insulation wall. There are 1,400 ft. of 1½-in. coils in this room, built up into shelves on 11-in. centers.

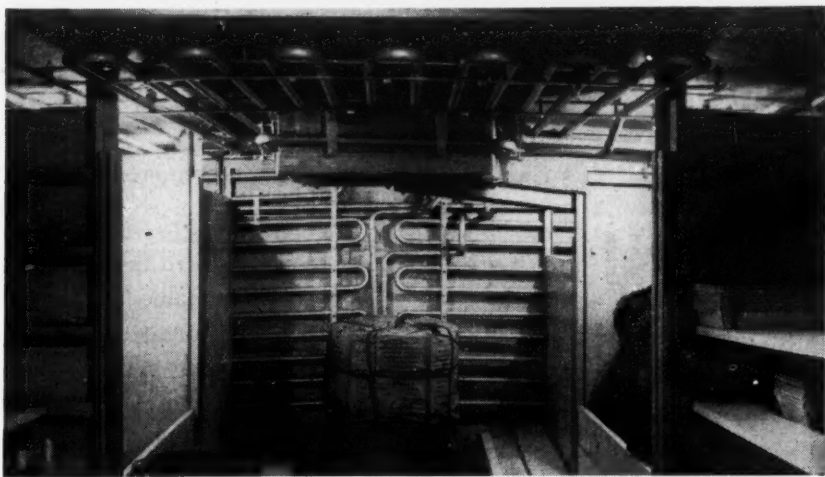
It is served with a four-cylinder 3½ in. x 3½ in. Baker ammonia compressor, driven by a 15-hp. Fairbanks-Morse electric motor. The sharp room will be held at -20° F. (In test runs a temperature of -30° F. was achieved.)

The storage hold of 4,000 cu. ft. will be held at 0° F. (Trial runs got it down to -10°.) There are 1,500 ft. of coils under the deck, skin, and bulkheads of the hold which is served by a two-cylinder 3½ in. x 3½ in. Baker ammonia compressor, powered by a 5-hp. Fairbanks-Morse motor. An identical compressor and motor are on standby service.

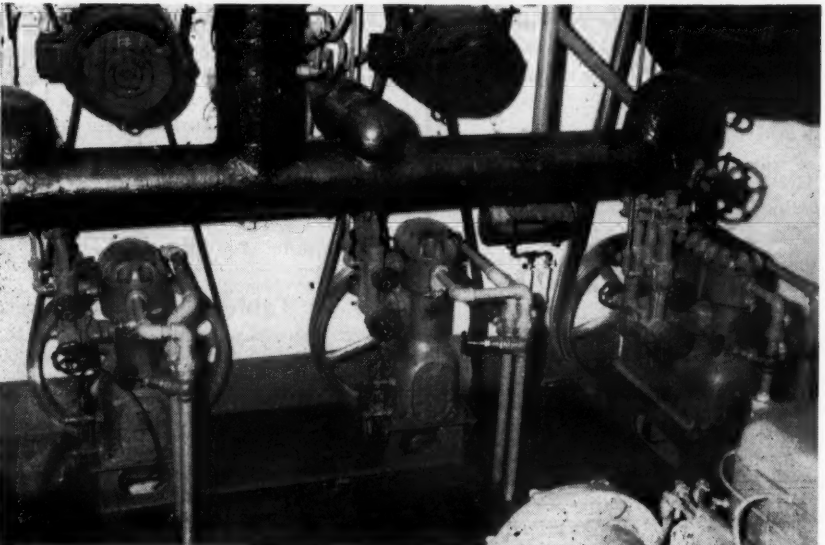
There are a 16-in. by 12-ft. horizontal shell and tube condenser and a 13-in. by 8-ft. horizontal ammonia receiver to complete the installation.

The work was done under the supervision of R. J. McJannet, marine sales engineer for Northwest Baker Ice Machine, who also supervised tests during trial runs of the vessel in July.

Experimental fishing was done in the Columbia River, out of Astoria, Ore., prior to departure of the ship for the Carribean.



View of the sharp freeze room of the "Reina Del Caribe."



Compressor on right serves sharp freeze room, center one serves storage hold and one on left is standby unit. Motors are above.

Theriot Builds New Home For Refrigeration Firm

BRADENTON, Fla.—F. N. Theriot has purchased a plot of ground here, and workmen have started breaking ground preliminary to the construction of a modern building which will be the new home of Theriot's Refrigerator Sales & Service.

Cost of the building, to be of concrete block and cement with reinforced columns of steel beams, is estimated at over \$20,000. The building will have a 50-ft. frontage and will be 100 ft. deep. Completion of the building is expected in 60 days, and it will be constructed in such a way that a second story may be added.

Consolidated Industries Names Kirby Chief Engr.

LAFAYETTE, Ind.—Consolidated Industries, Inc. has announced the appointment of Kirby Walker, formerly chief engineer of the American Gas Machine Co., as chief engineer of Consolidated.

In the early 1930's, Mr. Walker joined the American Radiator Co., in charge of development programs covering combustion, controls, and heating systems. During the war, he was associated with the Glenn L. Martin Co. and Fairchild Aircraft and was responsible for aircraft cabin heating and the heating of wings for the removal of ice while in flight. Under his direction some important developments were made in heat transfer and the design of heat exchangers.



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TRADE FACILITIES...unequaled. New Orleans International House (above) and International Trade Mart aid in your buying-and-selling with Latin America and the world. The new Foreign Trade Zone (below) gives you competitive advantages in manufacturing, exporting, and importing.



HERE ARE MARKETS...Local and foreign—easily reached from strategically located New Orleans: 150,000,000 buy-minded Central and South Americans, many of whom live in tropical and sub-tropical regions—our own rich, 22-state Mid-Continent area—the 10 southern states which contain 23% of the nation's population and produce less than 3% of the refrigerators manufactured in the United States.

HERE ARE RESOURCES...Raw materials in abundance are available near New Orleans. Also, sheet steel and rolled shapes may be shipped inexpensively by barge from Birmingham, electric motors from Ohio and Illinois. Castings of all types, sizes and shapes are made by experienced foundries in this area. Unlimited low cost natural gas for enameling ovens; ample supplies of economical electric power.

HERE IS TRANSPORTATION...New Orleans' coordinated facilities are the finest: modern, sheltered harbor, 97 ship and barge lines, 8 major air lines, 9 trunk line railroads, well-kept highways, and connected with the 13,000 mile network of inland waterways. All these favorable factors are supplemented by a plentiful, cooperative supply of *Skilled Labor*, which has more than doubled since 1940, and *Friendly Taxation*, local and state, which helps encourage industrial growth.

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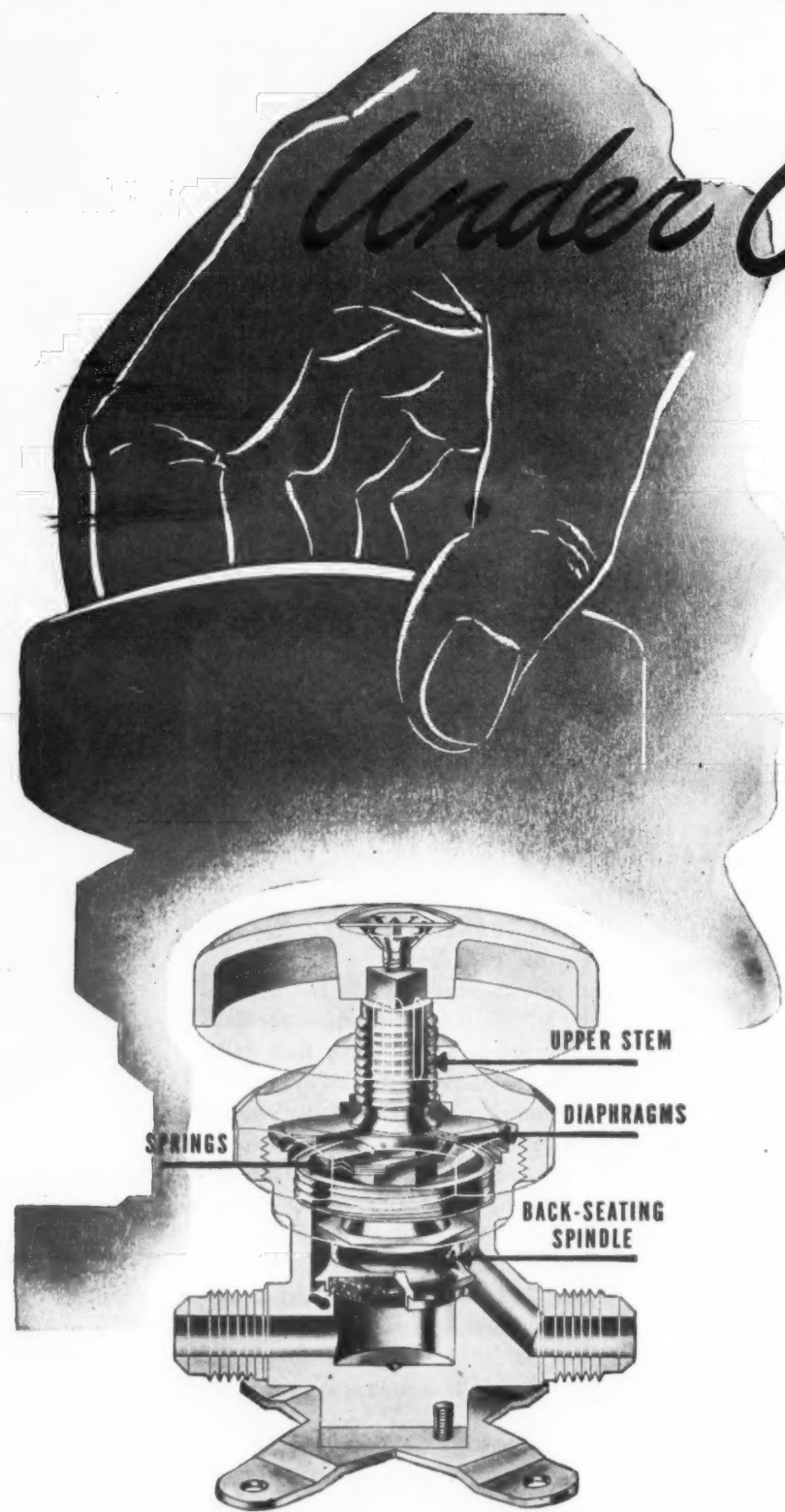
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Multiple diaphragms provide maximum flexibility and smooth operation.

Flat springs eliminate spring fatigue and enable our designers to reduce the over-all height of Weatherhead Packless Valves by half an inch or more... a desirable feature where installation space is at a premium.

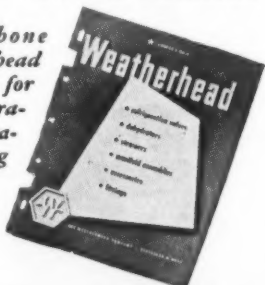
If grit or other foreign matter gets in the valve, the laminated seat in the lower stem takes the punishment and protects the body seat from destructive scoring.

Our designers have given careful attention to the appearance of Weatherhead Packless Valves too. All valves are equipped with handsome, round, easy grip handles, and "in line" inlet and outlet parts make possible perfectly symmetrical installations.

Weatherhead Packless Valves are available in a wide variety of sizes both flared and solder types.

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The **KEY** to Air Conditioning

By James J. LaSalvia

This is third instalment in a new series of articles prepared to give both fundamental and advanced data on the practical application of air conditioning, especially comfort cooling installations.

The author is a consulting engineer whose experience in the field covers a broad range of activities over a period of almost 30 years.

Ventilation (Cont.)

VENTILATION REQUIREMENTS

In enumerating the factors which must be considered for figuring the ventilation requirements, it is apparent that some standard means must be adopted to figure the amount of ventilation for various types of establishments.

It must be remembered that the ventilation requirements must be

sufficient to take care of the people, odors, smoke, and if by mechanical means it must also be greater than the natural infiltration.

Table 1 shows the kind of establishments, c.f.m. air changes, etc. which must be checked with each other in order to arrive at the proper ventilation figure.

(Concluded on next page)

Table 1—Ventilation Requirements (Outside Air)

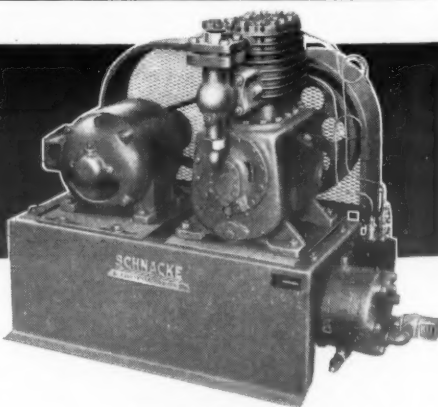
Type of Application	A		B				
	C.f.m. per Person	Minimum	Ceiling Height				
			8 ft.	10 ft.	12 ft.	16 ft.	20 ft.
Apartment	10	15	3	2	1½	1	¾
Banking Space	7½	10	3	2	1½	1	¾
Barber Shop	7½	10	3	2	1½	1	¾
Beauty Parlor	7½	10	3	2	1½	1	¾
Brokers' Board Room	20	30	8	6	4½	3	2½
Cafeteria	15	20	6	4½	3½	2½	1½
Cocktail Bar	20	30	8	6	4½	3	2½
Churches	5	7½	3	2	1½	1	¾
Department Store	7½	15	3	2	1½	1	¾
Directors' Room	30	40	8	6	4½	3	2½
Drug Store (no counter)	7½	10	3	2	1½	1	¾
Drug Store (with counter)	10	15	5	3½	3	2	1½
Funeral Parlor	5	7½	3	2	1½	1	¾
Gambling Rooms	20	30	8	6	4½	3	2½
Hospital Room	10	15	3	2	1½	1	¾
Hotel Room	10	15	3	2	1½	1	¾
Office, General	10	15	4	3	2½	1½	1
Office, Private	10	15	5	3½	3	2	1½
Restaurant	12	15	5	3½	3	2	1½
Shop, Retail	7½	10	3	2	1½	1	¾
Theater	5	7½					
Residence, or any room in a residence			3	2	1½	1	¾
Note: For General Applications							
Each Person Not Smoking	5	7½					
Each Person Smoking	20	30					

C					D				
No. of Outside Exposure to Space					Outside Door Infiltration				
1	2	3	4		When outside doors are to be left open continuously, the infiltration shall be taken at 40 c.f.m. for every square foot of door opening. This is based on normal outside wind velocities. For greater outside wind velocities, open doors should be closed.				
Infiltration Air Changes per Hour	1	1½	2	2					

SCHNACKE Complete CONDENSING UNITS

SCHNACKE units have replaceable refrigerant-cooled steel cylinder sleeves, complete pressure lubrication, balanced forged crankshafts, individual cylinder liquid relief, individual cylinder valve cage assemblies, built-in suction strainers, sealed crankcase, balanced pressure shaft seal, insert type bearings, water or air cooled heads, and many other advanced features.

Condenser is ASME approved, fin tube, cleanable type mounted in sturdy base. Water control valve and pressure controls installed.



Illustrated above is the "T-C" Model, with capacity from 5 H.P. low temperature to 15 H.P. Air Conditioning. F-C Models to 25 H.P. available; less condenser, from 5 to 50 H.P.

Our new foundry now makes deliveries on most models possible in one to two weeks.

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AIR CONDITIONING
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PARTS AND SUPPLIES

SERVICE PARTS COMPANY
2511 Lake St., Melrose Park, Illinois

Ventilation --

(Concluded from preceding page)

NOTES ON USING TABLE 1

(a) In no case shall the ventilation requirements be less than that required by any local ordinance governing the space to be air conditioned.

(b) Same number of persons should be used to obtain the ventilation requirements as that used to obtain the refrigeration load.

(c) The total quantity of outside air used for ventilation in each design shall be figured separately by three methods and the greatest amount of any one of these methods should be used:

Method No. 1, as in Col. A—C.f.m. per person.

Method No. 2, as in Col. B—Ceiling heights.

Method No. 3, as in Col. C—Number of outside exposures.

(d) In case of outside doors being kept open to an air conditioned space use Col. D, in addition to the air requirements under Cols. A, B, and C, to find total outside air to meet the ventilation requirements.

(e) It is recommended for best practice to keep all doors to air conditioned space closed, except when entering and leaving.

METHOD OF CALCULATING PROPER AMOUNT OF VENTILATION

EXAMPLE NO. 1

Assume a restaurant 100 ft. long, 40 ft. wide, and 12-ft. high ceiling. It is to accommodate 250 people, including the help. There is medium to heavy smoking. It is exposed to two outside walls. What is the amount of outside air in c.f.m. to meet the ventilation requirements?

Method No. 1—C.f.m. per person. From Table 1, Col. A, preferred 15 C.f.m.

250 people x 15 c.f.m. = 3,750 c.f.m.

Method No. 2—Ceiling height. From Table 1, Col. B, three air changes per hour.

100 ft. x 40 ft. x 12 ft. x 3 = 2,400 c.f.m.

Method No. 3—Number of outside exposures. From Table 1, Col. C, 1½ air changes per hour.

100 ft. x 40 ft. x 12 ft. x 1.5 = 1,200 c.f.m.

60 minutes

In the above example, Method No. 1 is the greatest with 3,750 c.f.m. Therefore, use 3,750 c.f.m. as the ventilation requirements or outside air.

EXAMPLE NO. 2

Take the same assumptions as in the above Example No. 1, with the exception that it is to accommodate 150 people instead of 250, and there is light smoking. What is the amount of outside air in c.f.m. to meet the ventilation requirements?

Method No. 1—C.f.m. per person. From Table 1, Col. A, use 12 c.f.m.

150 people x 12 c.f.m. = 1,800 c.f.m.

Method No. 2—Ceiling height. From Table 1, Col. B, use 3 air changes per hour.

100 ft. x 40 ft. x 12 ft. x 3 = 2,400 c.f.m.

60 minutes

Method No. 3—Number of outside exposures. From Table 1, Col. C, use 1½ air changes per hour.

100 ft. x 40 ft. x 12 ft. x 1.5 = 1,200 c.f.m.

60 minutes

In this example Method No. 2 is the greatest with 2,400 c.f.m. Therefore, in this case use 2,400 c.f.m. as the ventilation requirements or outside air.

EXAMPLE NO. 3

Assume a restaurant 100 ft. long, 40 ft. wide, and 20-ft. high ceiling. It is to accommodate 150 people, including the help. There is light smoking. It is exposed to three outside walls. What is the amount of outside air in c.f.m. to meet the ventilation requirements?

Method No. 1—C.f.m. per person. From Table 1, Col. A, use 12 c.f.m.

150 people x 12 c.f.m. = 1,800 c.f.m.

Method No. 2—Ceiling height. From Table 1, Col. B, use 1½ air changes per hour.

100 ft. x 40 ft. x 20 ft. x 1.5 = 2,000 c.f.m.

60 minutes

Method No. 3—Number of outside exposures. From Table 1, Col. C, use 2 air changes per hour.

100 ft. x 40 ft. x 20 ft. x 2 = 2,667 c.f.m.

60 minutes

In the above example Method No. 3 is the greatest with 2,667 c.f.m. Therefore, use 2,667 c.f.m. as the ventilation requirements or outside air.

EXAMPLE NO. 4

Suppose that in the above Examples No. 1, 2, and 3, there was an outside door 3 ft. wide and 7 ft. high, which was to be kept open at all times. What would be the amount of outside air in c.f.m. to meet the ventilation requirements?

Door 3 ft. x 7 ft. = 21 sq. ft. From Table 1, Col. D, use 40 f.p.m. per sq. ft.

21 sq. ft. x 40 f.p.m. = 840 c.f.m.

Therefore, the total outside air for ventilation to be used is as follows:

Example No. 1:

3,750 c.f.m. + 840 c.f.m. = 4,590 c.f.m.

Example No. 2:

2,400 c.f.m. + 840 c.f.m. = 3,240 c.f.m.

Example No. 3:

2,667 c.f.m. + 840 c.f.m. = 3,507 c.f.m.

City To Install New Sewer For Air Conditioning Water

ELMIRA, N. Y.—The City Council has authorized construction of a 15-in. storm sewer on the north side of Water St. to handle air conditioning water from new stores planned in that area.

City Manager Klebes said the sewer will handle only air conditioning water, which enables dumping into the river. The new sewer was deemed necessary to relieve the load on the present business area sewers.

Most of the new stores planned on Water St. and College Ave. are expected to have air conditioning.

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Chicago's Oldest Refrigeration & Air Conditioning Supply House

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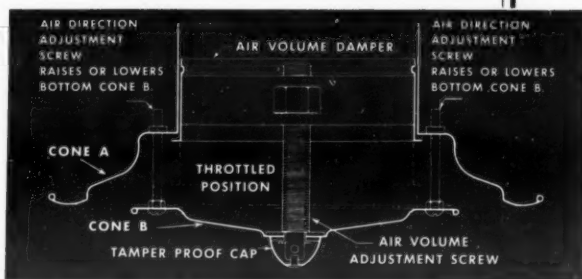
Larkin refrigeration products, made by the originators of Cross Fin Coils, combine industrial beauty with flawless performance. Humi-Temp Forced Convection Units—Bare Tube and Zinc Fused Steel Plate Coils—Evaporative Condensers—Air Conditioning Units—Instantaneous Water Coolers—and other top-ranking factors in industrial and commercial refrigeration.



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Kno-Draft Adjustable Diffusers offer all the advantages of draftless air diffusion plus fast system balancing and air pattern control

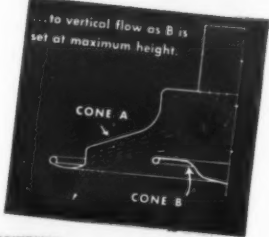
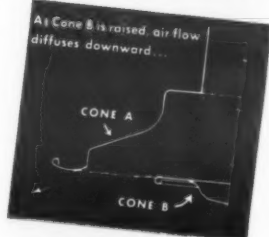


Fast System Balancing: Volume damper regulates the air outlet aperture uniformly without affecting the outlet velocity or diffusion pattern.

Positive Air Pattern Control: Air direction adjustment affords any angle of air discharge from vertical to horizontal needed to accommodate ceiling heights, individual or seasonal requirements. It can expel chilled air parallel to the ceiling or eject heated air downward to prevent stratification.

Specify Kno-Draft Adjustable Air Diffusers for better mixing control of room and supply air, more uniform temperatures throughout the occupied zone and noiseless, draftless air distribution.

Send for FREE handbook containing sketches, charts, dimension prints and instructive text that simplify the selection and installation of air diffusers. For your copy, please write Dept. A-14 on company letterhead.



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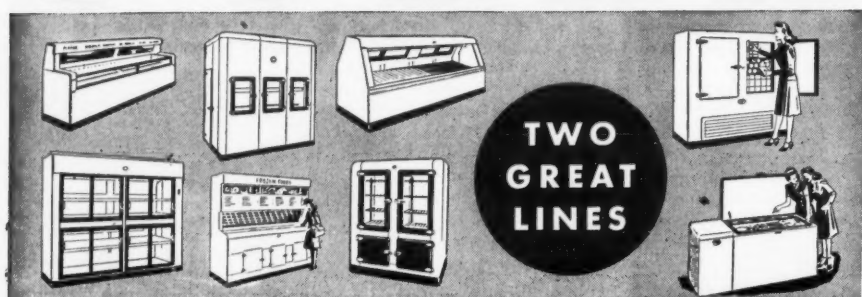
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Refrigeration Problems And Their Solution

By P. B. Reed

For Service and Installation Engineers



Manager, Refrigeration and Air Conditioning Division, Perfex Corp.

Making Money In a Service Business (7)

ANALYZING THE BUDGET

There are several points about this Budget that deserve comment. In the first place it is evident that it is for a large service business that is departmentalized and whose activities are well systematized. The volume and overhead are both large. Several employees are required to perform duties that might be done by one or two employees in a smaller operation employing only a few servicemen.

For example, in a small business, the entire supervision might be done by one man, the owner; thus eliminating the Service Manager and Shop Foreman. One girl could, in a small business receive and allocate all phone calls for service, whereas in this larger organization the calls are received by two girls and passed on to the two Dispatchers who allocate them to the Servicemen, see that the Servicemen turn in their Service Work Orders, properly filled out, take the C.O.D. money from the

Servicemen and with the clerical help, "cost-out" the Service Work Orders and post them on the Service Record Card.

It will be noted that the per cent of Gross Profit for Installation is somewhat lower than for Service. This is partly due to a heavy percentage of the installation work being contract work for dealers, especially domestic, and partly to the management's policy of holding installation prices low, so as to get this work and thus be in a favorable position to get the "paid" service on those installations after the dealers' free-service period expires.

MAY OVERHEAD

The Overhead for the month of

May was budgeted at \$5,485 or 18.3% of Net Sales. An 18.3% overhead is quite low, but May is one of this company's heavy months, and percentage-wise, the Overhead is favorable.

No attempt has been made in this Budget to apply the 18.3% Overhead to the separate departments or activities (such as Commercial Installation, Domestic Service, Shop Repair, etc.). This could be done and a Profit Before Taxes shown for each department.

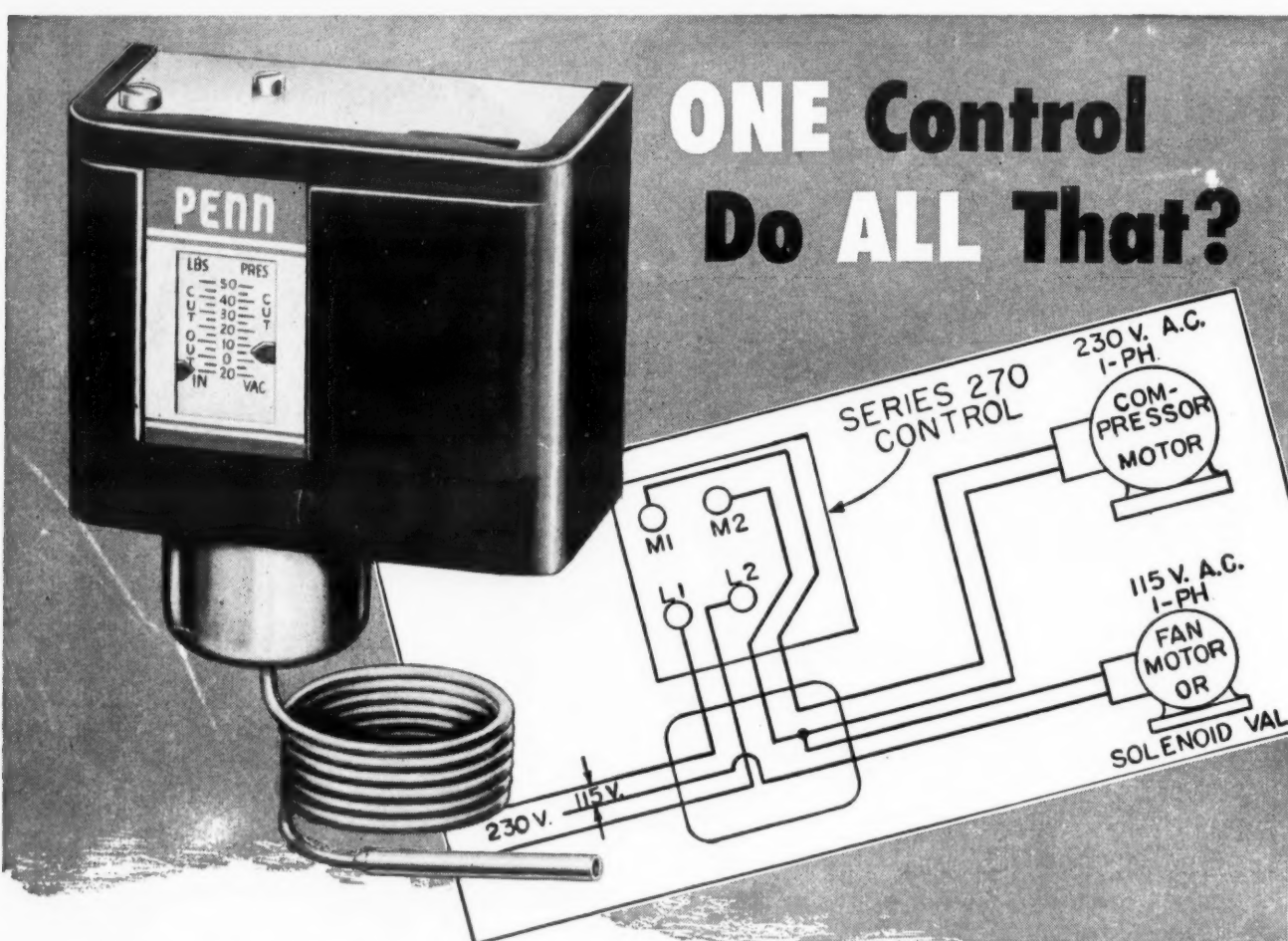
The Management of a business may find it helpful to occasionally do this. A detailed analysis of a business is often revealing, but it must be recognized that it can be overdone.

(Continued on next page)

Table 1--Profit and Loss Budget for May, 1947

	Net Sales	Direct Costs	Gross Profit Amount	%
Domestic Installation				
Material	\$ 140	\$ 85	\$ 55	
Labor	540	360	180	
Total	680	445	235	34.6
Domestic Service				
Material	3,150	1,750	1,400	
Labor	3,675	2,450	1,225	
Total	6,825	4,200	2,625	38.5
Commercial Installation				
Material	1,110	610	500	
Labor	1,860	1,240	620	
Total	2,970	1,850	1,120	37.8
Commercial Service				
Material	5,430	2,950	2,480	
Labor	4,725	3,150	1,575	
Total	10,155	6,100	4,055	40.0
Air Conditioning Installation				
Material	890	490	400	
Labor	780	520	260	
Total	1,670	1,010	660	39.5
Air Conditioning Service				
Material	2,000	1,100	900	
Labor	2,700	1,800	900	
Total	4,700	2,900	1,800	38.4
Shop Repair				
Material (Including Misc. Supplies)	1,290	580	710	
Labor	1,710	1,140	570	
Total	3,000	1,720	1,280	42.7
Grand Totals	\$30,000	\$18,225	\$11,775	39.3
		May Only	Entire Year	
Net Sales		\$30,000	\$280,000	
Direct Costs		18,225	178,080	
Gross Profit		11,775	101,920	
Percent, Gross Profit		39.3%	36.4%	
Overhead		5,485	77,560	
Percent Overhead		18.3%	27.7%	
Profit Before Income Tax		6,290	24,360	
Percent Profit Before Income Tax		21%	8.7%	
Federal Income Taxes		1,443	5,590	
Net Profit After Taxes		4,847	18,770	
Percent of Net Profit After Taxes		16.2%	6.7%	

Table 1—A P and L Budget for a sizable Refrigeration Service and Installation Company, who does not merchandise other than installation and service parts, supplies, and replacement machines and coils. See Table 2 for itemization of Overhead.



Series 270 and 272 PENN "Single" Temperature or low side pressure controls. Also (not shown) Series 271 and 273 PENN "Dual" Controls which combine in one unit a temperature or low side pressure actuated mechanism and built-in high pressure safety cut-out.

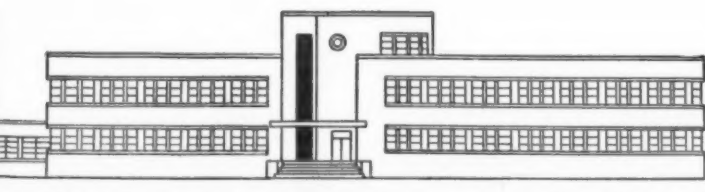
Yes, there's practically no limit to the versatility of the PENN 270 Series Control—the first and only control that features a load-carrying, 2-poles switch.

It's efficient and practical in all types of conventional refrigeration and air conditioning jobs as well as many unusual applications not possible with ordinary single pole controls. The diagram above shows a suggested hookup for a 3-wire, 115 and 230 volt AC system. This installation, for example, might be a 230 volt AC single phase compressor motor and a 115 volt AC single phase fan motor, solenoid valve or other device to be operated simultaneously.

The PENN 270 Series also can be used to control simultaneously the operation of two single phase AC or DC motors. It can control poly-phase motors of 3 h.p. or under without line starters (where protection against single phasing is provided). It is a better and more economical method of controlling multiple refrigeration systems.

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WABASH

MANUFACTURING CO.

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Using a Budget --

(Continued from preceding page)

The results obtained and the value of such a detailed study are sometimes not commensurate with the cost, time and effort involved in assembling the material and making the analysis.

The above Budget shows an expected volume of sales (Net Sales) for the month of May of \$30,000, with a Gross Profit of \$11,775 or 39.3%. With a budgeted Overhead as shown of \$5,485 or 18.3% of the Net Sales, a Profit Before Taxes of \$6,290 or 21% of Net Sales, is left.

**Table 2--Overhead Budget
(Operating Expenses)
May, 1947**

Salaries	
General Manager	\$ 600.00
Service Manager	400.00
Shop Foreman	350.00
Dispatchers (4 to receive and dispatch)	720.00
Stockmen (3)	580.00
Truck Driver	190.00
Stenographer	175.00
Clerks (3)	420.00
Janitor-Porter	140.00

Total \$3,575.00

Auto and Truck Expense

Gasoline	\$ 50.00
Oil	8.00
Repairs	7.00
Miscellaneous (Greasing, Washing, etc.)	20.00
Depreciation	50.00
Insurance	10.00

Total \$145.00

Rent

Taxes (State and Local on

Equipment and Inventory)

Electricity

Gas

Telephone and Telegraph

Office Supplies

Postage

Freight and Express

Advertising (Phone Book,
Newspaper, and

Direct Mail)

*Insurance

Association Dues and

Periodicals

*Maintenance of Equipment

Miscellaneous, Unclassified

Expenses

Reserves

Depreciation

Inventory

Bad Debt

Total 475.00

Total Overhead for May \$5,485.00

*Exclusive of Auto and Truck.

Note: Auto and truck expense

covers only one truck and a coupe

for the Service Manager. Servicemen

furnish their own cars for which they

are paid at the rate of 6 cents per

mile.

May's share of the Federal Income Tax for the entire year, (figured on a ratio of Profit Before Taxes of May to that of the entire year) is \$1,443, leaving a Net Profit After Taxes of \$4,847 or 16.2% of Net Sales.

MAY AN ABOVE-AVERAGE MONTH

This Budget may appear unduly optimistic until it is remembered that the month of May is above the average in Volume (Net Sales) Direct Costs, Gross Profit, Profit Before Taxes, and Net Profit After Taxes.

Since the per cent of Gross Profit does not vary much with volume and since Income Taxes are apportioned according to Profit Before Taxes, the May per cent of Profit Before Taxes and the per cent of Net Profit After Taxes can both be expected to be higher than the average for the year.

Comparison of the figures for May with those for the year show this to be true, with May's per cent of Profit Before Taxes being 21% and for the entire year, 8.7%. Likewise, May's Net Profit After Taxes was 16.2% compared with 6.7% for the entire year. It is not surprising that May should show up well, for in fact it is one of the good months that must help carry some of the lean months.

A SEASONAL BUSINESS

During the month of March, this company's business begins to rise to attain a peak in May and June. By September it has dropped in volume to the point where it is only barely making a Net Profit. During the months of November, December, January, and February, it shows a Net Loss.

YEARLY PERCENTAGES

Its average Overhead throughout the year is 27.7%, its average Gross Profit for the year is 36.4% and its Profit Before Taxes is 8.7%. Taxes are 23% of Profit Before Taxes, leaving a Net Profit After Taxes of 6.7%, which in these days is not too bad,—more than many "big businesses" are making.

USING THESE PERCENTAGES IN BIDS

In addition to planning the business, analyzing it and making corrections in operations as may be shown desirable or necessary, the Budget has another very definite and practical use: it furnishes the mark-ups that must be used in estimating your cost and the selling price on a job on which you have an opportunity to bid.

Armed with the information that the budget gives, you can rather accurately estimate your costs and arrive at a selling price that you know you must get if you are to make the profit aimed for in your budget.

If someone else underbids that price, you can be quite agreeable to

his taking the job, for you know that at his price you would be "trading dollars"; that is, make no profit; or in fact you might even lose money.

Knowledge of your costs enables you to know just how low you can go and still come out with a profit; if occasionally as illustrated later, get an advantage that is worth money, you are better off not getting the job.

CARRYING THE BURDEN

In slack times, when business is poor, you must keep your volume high enough that your Gross Profit will cover your Overhead. Under such conditions it is permissible to take some business without a Net Profit simply as a "burden carrier," that is, to carry the burden of the Overhead and keep from going into a Net Loss.

(To Be Continued)



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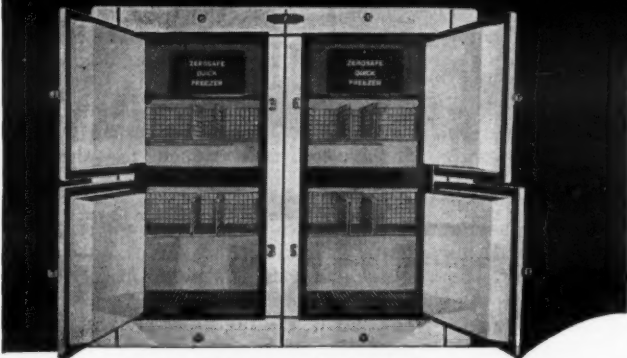
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Sectional Model FF-60

THE GREAT NAME IN FREEZER DESIGN

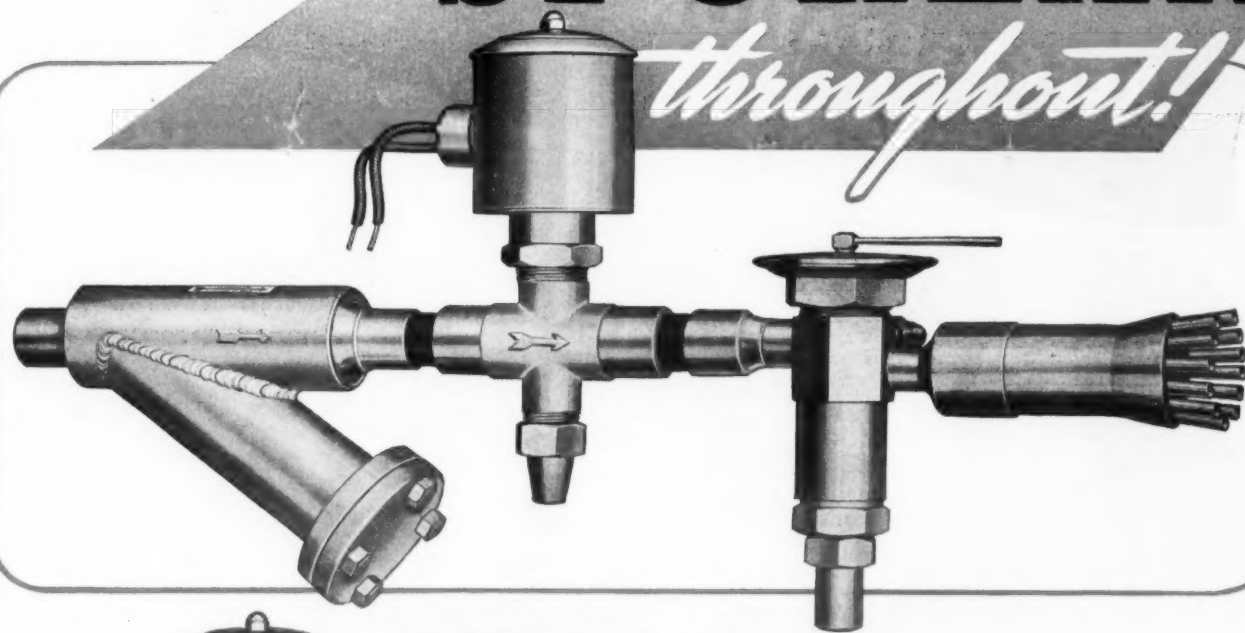
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The Home Freezer—Factors In Its Size, Design and Operation

Prof. Nicholas' Analysis Covers Choice of Systems and Controls

By John E. Nicholas, Professor of Agricultural Engineering,
Pennsylvania State College, State College, Pa.

Because of the newness of the home food freezers both for the city and for the farm, there is not yet any close standardization of design such as we have in the domestic refrigerator field.

At the present time, neither the public nor the industry has exact information as to the requirements on types and sizes. Therefore, the home food freezer design today is in the pioneer stage, built on the limited field knowledge.

The storage capacity of the home freezer required for the family will depend, (1) upon the family's method of purchasing and handling foods, and (2) upon the size of the family. A city family which purchases all its frozen food requirements twice or three times weekly from a retail store may not necessarily need a separate food freezer, but could use the new type domestic kitchen refrigerators having to 2 cu. ft. of frozen food space. This article will deal with the needs of the family which desires to handle its food requirements by one or more of the following methods.

1. Raising fruits and vegetables at home—then processing and packaging at home.

2. Purchasing fruits and vegetables in quantity during season—then processing and packaging at home.

3. Purchasing beef, pork, mutton, etc., in quantity—then processing and packaging at home or by local locker plant.

4. Seasonal home freezing of domestic and game fowl.

5. Freezing of hunters' and fishers' seasonal "bag" or "catch" for year-round storage and use.

6. Purchasing of packaged frozen foods, of all types, in large amounts at wholesale prices.

7. Freezing and storage of cooked foods, pastries, etc.

Cabinet self-contained type food freezers vary in size from 3 to 32 cu. ft. net storage capacity, with no standardization of sizes among users or manufacturers. Sizes up to 18 cu. ft. are generally used for the city home, and up to 32 cu. ft. for the farm home.

Sizes above 8 cu. ft. for the city home should be the combination quick freezing and storage types, while all sizes of food freezers for the farm should be the combination quick freezing and storage types.

For a large farm or ranch, a family

Prof. Nicholas has put in many years of studying and testing home freezer construction and operation, and this article represents some of his conclusions about home freezer size, design, and use. While the editors may not necessarily agree with all of his conclusions, the NEWS is pleased to present these viewpoints of a neutral observer for what they may be worth.

The article was originally presented as a talk before the 1947 Georgia Frozen Food Conference, sponsored by the College of Agriculture of the University of Georgia, and the Georgia Frozen Food Locker Association.

This is the first part of a two-part article.

having eight or more persons to feed, or a small farm engaged in retail, consideration should be given to a walk-in type of freezer. These are now built in sizes having net storage capacity ranging from 120 to 300 cu. ft.

Recommended Size

It has been the general recommendation that the consumer requires not less than 4 cu. ft. of net storage capacity for each person in the city family, and not less than 5 cu. ft. of net storage space for each person in the farm family. Thus, the net storage capacity of the home freezers for the family should be approximately as follows:

CITY HOME		
Persons in Family	Size	Functions
2	8 cu. ft.	Storage Only
3	12 cu. ft.	Freezing & Storage
4	16 cu. ft.	Freezing & Storage
5	20 cu. ft.	Freezing & Storage
6	24 cu. ft.	Freezing & Storage

FARM HOME		
Persons in Family	Size	Functions
2	10 cu. ft.	Freezing & Storage
3	15 cu. ft.	Freezing & Storage
4	20 cu. ft.	Freezing & Storage
5	25 cu. ft.	Freezing & Storage
6	30 cu. ft.	Freezing & Storage
7	35 cu. ft.	Freezing & Storage
8 or more	Walk-in	Freezing & Storage

Many families who require a large storage capacity should use two smaller food freezers, each approximately one-half the capacity desired. Taking installation expenses into consideration, two smaller units are only slightly more expensive in initial cost than one large double-sized unit.

The advantages of having two units are that one is always available for use in the event of operational difficulties with the other, and power costs can be reduced during seasons having low quantities of food storage by turning one "off."

Components of a Home Freezer

Ordinarily a food freezer cabinet consists of a heavily insulated steel cabinet, either a "chest type" with a top opening door, or a "vertical type" with front opening door. The cabinets are usually finished on the exterior with synthetic baked enamel and with either synthetic baked enamel or vitreous enamel on the interior. There should be some "coating" between the bare steel and synthetic baked enamel to improve the adherence of the paint and to act as a rust resisting agent in case the finish is marred or scratched.

Some cabinet interiors are galvanized steel; some are built of aluminum and stainless steel for both exteriors and interiors. Plastics are not now being used for inner and

outer liners—but are used for breaker strips and door interiors.

The cabinet temperature is thermostatically controlled, automatically starting and stopping the condensing unit motor in response to changes in the interior cabinet air temperature, the evaporator temperature, or a combination of both.

General Cabinet Design

One of the first considerations in the design of a self-contained home freezer cabinet is to limit the outside dimensions so that the unit can be delivered into the home through a 30-in. wide door and can be turned on the average stair landing. One dimension should not exceed 29 in., which would leave ½ in. on each side for clearance.

The length should not exceed 6 ft. 6 in., so as to pass, partially tilted, through a 7-ft. high door.

The third dimension should not exceed 35 in., so as to turn, on end, in the ordinary stair landing. The thickness of insulation depends upon the efficiency of the insulation used.

There are two general types of self-contained cabinets (excluding the walk-in freezer). One is the "Chest Type," having a top opening door or doors, and the other is the "Vertical Type," with a front opening door or doors. There are distinct advantages in both the "chest" and "vertical" types, but it should be kept in mind that the fundamental principles of design are the same.

The "chest" type has the advantage that when the door is opened the air does not readily escape, which would prevent replacement with damp, warm air depositing the frost on the evaporator. This means less frequent defrosting. There may be less heat transfer through the breaker strip and seal on a cabinet having a top opening door than on one with a front opening door, due to the higher interior air temperature at the top of the cabinet.

The "vertical" type has the advantages of requiring less floor space and the contents are more accessible where small drawers are used. However, the "vertical" type freezer requires some floor space to be allowed for opening of doors.

Drawer, racks, baskets, etc., are often used in food freezers to make easier access to contents for the owners. However, these features waste space and it is questionable if the additional convenience will compensate for the loss in storage volume.

The fewer doors on a freezer cabinet, the less will be the heat leakage through breaker strips, seals and supporting members. Where economically possible, one door should

(Continued on next page)

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No Restriction in Flow Capacity

Mueller Brass Co. refrigeration fittings conform in every respect to S. A. E. standards with the exception of the bore. THE BORE IS MACHINED TO PERMIT A FULL FLOW EQUAL TO THE INSIDE DIAMETER OF THE TUBING USED, AND CONSEQUENTLY IS LARGER IN INTERNAL AREA THAN S. A. E. FITTINGS.

All fittings are accurately machined and of the

highest quality materials. All flare outlets are finished to the closest desirable tolerances.

Particular attention is given to the accurate machining of flared seats; they must be absolutely flat, smooth and concentric with the bore. All male flare threads are protected by heavy sleeves to prevent damage in shipping or handling.

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MUELLER BRASS CO.
PORT HURON, MICHIGAN



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The Bulletin 709 solenoid starter is a favorite for air conditioning and refrigeration because it is good for millions of operations and does its job day in and day out without attention. The double break, silver alloy contacts never require maintenance. There is only one moving part—no trouble-making pins, pivots, hinges, or flexible conductors. Write for information.

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ALLEN-BRADLEY
QUALITY
SOLENOID MOTOR CONTROL



Role of Insulation and Vapor Sealing in Home Freezers Outlined by Nicholas

(Continued from preceding page)

be used on either type of cabinet. Rounded corners and smooth surfaces should be used for the entire cabinet and lid to permit ease in cleaning.

A walk-in freezer is different from the smaller self-contained food freezer in that it is built at the factory in sections, taken into the building in sections, and assembled on the site. Sections should be insulated and vapor sealed individually, and must be of such size and shape to enter a building through a 30-in. wide by 84-in. high door and turn on an average stair landing. The over-all height should be such that it can be installed within a 7-ft. basement.

There are two common types of evaporators used for walk-in freezers. One has plate coils that are ordinarily used for shelves and has the advantage of contact conductive freezing of packaged food. The other type is the fan unit cooler, which may be equipped with either water spray, electric, or hot gas automatic defrosting devices.

Insulation Factors

There are many insulating materials suitable for use in a freezer cabinet. The proper thickness of the cabinet wall is in proportion to the thermal conductivity of the insulating material used.

Proper selection of insulating material is of utmost importance and involves such factors as (1) conductivity, (2) density (shipping cost and weight of large cabinets for ease in handling), (3) cost, (4) supply, (5) cabinet construction and support, (6) odors, (7) long life.

In the design of a larger type cabinet, the most efficient insulation material should be used to permit the minimum wall thickness, to obtain maximum interior storage capacity where there is a limit on the outside dimensions. On smaller units this is not so important.

Condensing the above mentioned factors, the insulated food freezer cabinet designed for a low operational cost, might incorporate the following simple standards in determining the minimum total insulation thickness:

Some Standards for Insulating Practice In Home Freezers

CHEST TYPE

1. Side Walls050 B.T.U./Hr. per Sq. Ft. per Degree F. Conductivity
2. Bottom050 B.T.U./Hr. per Sq. Ft. per Degree F. Conductivity
3. Top Doors070 B.T.U./Hr. per Sq. Ft. per Degree F. Conductivity
4. Common Wall or Bottom with Unit Compartment042 B.T.U./Hr. per Sq. Ft. per Degree F. Conductivity

VERTICAL TYPE

1. Side Walls050 B.T.U./Hr. per Sq. Ft., Total Thermal Conductivity
2. Top060 B.T.U./Hr. per Sq. Ft., Total Thermal Conductivity
3. Front Doors050 B.T.U./Hr. per Sq. Ft., Total Thermal Conductivity
4. Bottom042 B.T.U./Hr. per Sq. Ft., Total Thermal Conductivity

These standards are much higher than those for domestic household refrigerators or other higher temperature rooms. One of the greatest considerations between insulation as used for food freezer and higher temperature refrigeration applications is that of the vapor sealing of the insulation.

To prevent the transfer of moisture to the insulation space within the cabinet walls is one of the most difficult problems in the design and construction of a freezer cabinet, or walk-in freezer section. Even though the insulation material itself might not be directly affected by moisture, the moisture will transfer to and freeze within the air cells of the insulation and ruin the insulating effectiveness. During the "off" cycle it will tend to corrode the interior of the cabinet walls.

To compensate for the vapor transfer through the outer wall, some of the interior cabinet lines are vented to permit the vapor to continue through the insulation to the evaporator in the storage and freezing space. This may not be a good design, because there is a much higher rate of vapor transfer through the outer liner to the insulation space than there is through the inner liner to the evaporator. Also, the transfer of vapor causes an excessive accumulation of moisture on the evaporator and requires frequent defrosting.

It is essential that the outer wall and outer breaker strip be so designed and constructed to withstand vapor pressure, and where the evaporator is in the insulation side of

the inner liner or a part of the inner liner, then the inner liner and inner breaker strip should also be vapor-tight.

Vapor in this discussion is low temperature steam and its transfer can be described as being comparable in action to steam, and not with water pressure. Just as steam, it will transfer through wood, concrete, brick, plaster, and many other materials that will contain water at low pressures.

With a room ambient temperature of 100° F. and 90% relative humidity, the vapor pressure from the outside to within a 0° F. temperature cabinet will be approximately 122 pounds per square foot or .85 pounds per square inch.

For example, if a cabinet should lack a tight vapor-seal, capable of withstanding the above vapor pressures, and is not permanent and strong enough to withstand the expansion and contraction strains due to temperature changes, then the unit will lose in efficiency after it is in use for a short period of time and may fail in a few years.

In addition to adequate insulation, properly sealed, the type of breaker strip used between the inner and outer liner of both the cabinet and the door is quite important. This breaker strip should be not only vapor-tight, but should be so constructed as to prevent excessive heat conduction.

Where cabinet walls are insulated properly, the first sweating on the outer cabinet will occur around the breaker strip, and the extent and condition in which this sweating occurs depends upon the thermal conductivity, and thickness, of the breaker strip material.

Rigid insulation, of the lowest thermal conductivity possible, should be used under the inner liner and the bottom of the outer liner to support the weight from the inner liner caused by the food in storage. A structural frame of rigid insulation can be used within the bottom of a cabinet, together with semi-rigid insulation, or solid rigid insulation can be used alone. Rigid insulation, used for structural cabinet supports and

for breaker strips, is vulnerable to excessive exterior sweating and heat leakage, unless material having a high resistance to heat flow is used.

Door Seal

The sealing of the doors on zero temperature cabinets is a different problem from that of the doors on higher temperature units. Not only is there a problem of reducing heat flow, but there is also the problem of moisture accumulation and freezing due to vapor flow.

Vapor like water will flow from a high to a low pressure area, and if there is any area containing air within or between the seal, then ice or water will form in that air space governed by the tightness of the seals and the heat conductivity of the breaker strip.

If the vapor transferred into this seal air space freezes into ice, then it causes difficulty in the opening of the door, or if it stays in the form of water it will run into the inside of the cabinet when the doors are opened and freeze on the evaporator and food packages.

Because of the ice or water formation between the seals, in many cases, the double seal has been discarded in favor of the single seal. A single gasket allows more heat transfer than a double gasket, but it permits the vapor to flow directly to the evaporator and not accumulate within the seal and breaker strip. The most satisfactory door seal would be a machine fit, wide, solid seal with no air space within.

(To Be Continued)



IT'S MORE THAN JUST ANOTHER REFRIGERATION PLATE

In thousands of freezer cabinets, frozen food locker plants, sharp freeze shelf stacks and similar equipment all over the country Hubbell-Yoder Refrigeration Plates are doing the job better than it has ever been done before, and at a lower cost. They have established a new and vastly higher standard of operating efficiency and economy for low temperature refrigeration. They have set up a new mark for all other freezing units to shoot at. That briefly, is what the Hubbell-Yoder system of Complete Surface Freezing means when the chips are down. Would you like to know how it can be adapted to your requirements? Write, wire or phone.

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- - - and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast.

BUSINESS NEWS PUBLISHING CO., DETROIT

Whiting - the new great name in food freezers...so soundly engineered...so mechanically perfect that one of America's leading insurance companies now underwrites this amazing policy.



MODEL F-2000—Spacious 12 cu. ft. capacity of approximately 385 lbs. Powered by a 1/4 hp. removable "Packaged Power" sealed unit. Heavily insulated with 4" Fiberglass. Thermostatically controlled to maintain zero temperature.

MODEL F-1000—Convenient 4 1/2 cu. ft. capacity of approximately 165 lbs. Powered by a 1/8 hp. sealed "Packaged Power" removable unit. Insulated with 4" Fiberglass. Thermostatic control maintains constant zero temperature. Extra large condenser surface eliminates fan or additional cooling devices.

Here is dramatic proof of the superiority of the Whiting Food Freezer. Every Whiting Food Freezer owner, at his option, can secure an insurance policy that protects against food spoilage from any and all mechanical failures of the Whiting Food Freezer. Coverage is up to \$150.

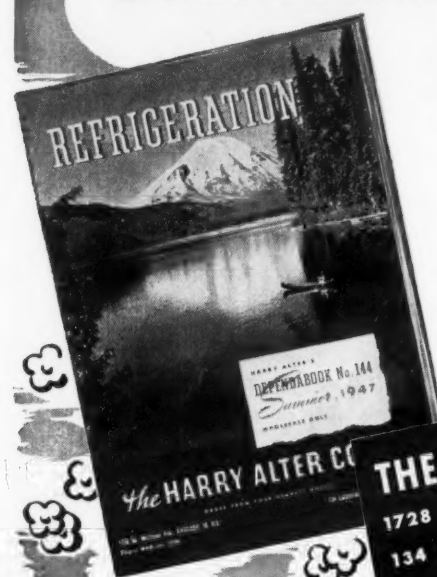
The incredibly low cost of this policy is five dollars and that covers the entire three years of the policy! The exclusive Whiting insurance policy is another reason why Whiting dealers enjoy more sales... more profits... more satisfied customers.

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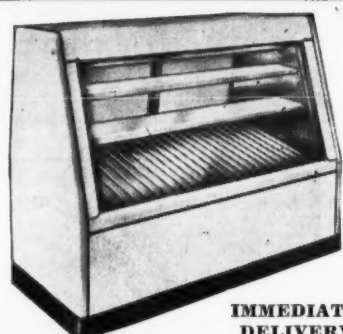
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Catalog you can't afford
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Adequate Fiscal Planning Spells Success For Service Firms, Ferguson Tells RSES

ST. JOHNS, Mich.—In order to assure itself of successful operation, each refrigeration service firm should set up a plan outlining the volume of business it needs to do in a year to show a profit and work from that plan.

So Harley Ferguson, commercial parts and service manager at Kelvinator's Detroit branch, told delegates from Michigan chapters of the Refrigeration Service Engineers Society gathered here.

Mr. Ferguson's talk, somewhat condensed, follows:

"The average independent serviceman is a good and competent mechanic—a good outside man; but experience proves that he is often inadequate in his executive abilities. In many, many cases he cannot profitably handle the interior workings of his business.

NEED TO LEARN MANAGEMENT

"As some of you know, I have been contacting independent servicemen, representing one company since 1930, and it has been my experience that they spend considerable time and money to obtain more refrigeration knowledge, but do not spend enough time and money to learn management and salesmanship.

"In order to successfully compete in business today, each independent organization must carefully prepare a plan, and then work that plan.

"How many of you, in the past, have set a quota on the volume of

business which must be done to support your organization and realize a fair profit at the end of each year?

"How many of you arrive at your place of business at 8 a.m. each morning and hold a sales meeting with your organization, and in such meetings discuss ways and means to obtain more business volume and how this work can be better performed?

"How many of you appropriate a percentage of your income for continuous advertising? How many of you figure depreciation on your equipment and stock each year?

'LOOK NEXT DOOR'

"It would be my suggestion that you take a look at the activities of the business next door, whether it be a department store, grocery store, an appliance store, a theater, or any successful business house.

"You will notice that their staffs report for duty at the same hour every day, regardless of closing hours. You'll see their daily or weekly advertising in the local newspaper.

"They put on specials during off-seasons, and if you have an opportunity to talk with their accounting departments, they will quickly point out that a budget is set for 12 months in advance so they know within a few points what their volume will be; what their expenses and net profit will be.

"After all, the net profit is what we are all interested in, (besides taking pride in a job well done).

"Here's another tip. Let's spend less time in criticizing our competitor because he is getting more business than we are, and utilize that time and effort to put our own organizations in order.

STUDY OF SALES VOLUME URGED

"It is my suggestion that you choose a group of six or ten men from your organization and accumulate figures on the gross volume of business that each serviceman should have per month in order for his business to be profitable, and set quotas on the basis of these figures.

"Now to clear up the question as to cooperation from the manufacturer. My company started in the early 1930's to make parts available to the independent service organizations at a price whereby they could realize a fair profit. This procedure is still followed and we have gone further by establishing parts wholesalers in almost all trading areas so that our genuine Kelvinator parts and supplies are available to you and, of course, to our customers.

DEALER CAN STRESS SELLING

"In the past few years, we have gone still further by franchising independents to do the service for our dealers in certain cities. This is done for two reasons; one, to utilize the service experience which we know you older men possess, and second, to encourage our dealers to spend their time selling our products instead of servicing them. This arrangement has been very successful."

New Commercial Firm Started In Waukegan

WAUKEGAN, Ill.—Stiles Bros., Inc., recently opened for operations as a commercial refrigeration dealership at 919 Glen Flora Ave. here.

Owned by two brothers, James F. Stiles III and Gilbert W. Stiles, the store occupies a specially designed building which was constructed by Raymond J. Borregard, building contractor.

The new firm will be exclusive dealer in the Waukegan area for General Electric refrigeration and air conditioning equipment. Other products handled include Puffer-Hubbard and Federal refrigerators and coolers, Colbar beer and beverage coolers, and Tausen refrigerators and bakery equipment.

Service manager of the new business is Oswald H. Tiss, who has a record of more than 20 years experience in refrigeration.

B. F. Goodrich Catalog Leaflet Describes Rubber Mallet Line

AKRON, Ohio—A new catalog leaflet on its line of rubber mallets has just been published by The B. F. Goodrich Co., and is available upon request.

The leaflet describes the semi-hard type rubber mallet, used in repair shops and other services where hammered surfaces must not be marred, and also the hard type for severe service.

Appliance Repair Shop Opened

BURBANK, Calif.—United Refrigeration & Appliance Repair Service is the firm name under which Lyman Chaplin and Arthur B. Clark have published a certificate that they are conducting business at 207 West Olive Ave., Burbank.

**IN REFRIGERATION
EXPERIENCED MEN
CAN SERVE YOU BEST**

Here's Sam Coff, our
genial and most experienced counter-
man. He's been with us 10 years.

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REFRIGERATION
SUPPLIES, INC.

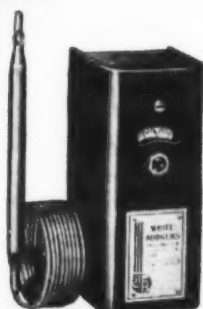
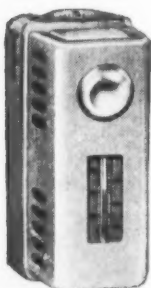
**Atlanta Jacksonville
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*"The South's Largest
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"It never takes long to
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Controls"

... and once they're in, you can
count on them for accurate, dependable performance

Easy to install, easy to adjust — that is why White-Rodgers controls are such big favorites with refrigeration service men everywhere. Mount them at any angle, in any position — they give positive, reliable performance. The visible dials are accurately calibrated in degrees Fahrenheit or pounds pressure and quickly adjusted with only a screwdriver. Nor is waiting or testing necessary — just set the dials and go on to the next job. White-Rodgers Electric Company, St. Louis 6, Missouri.



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MANUFACTURERS SINCE 1928

Chattanooga Sales New Westinghouse Plant Will Have Output Capacity of 2 Refrigerators Per Minute

(Concluded from Page 1, Column 4)
(which sells no appliances) from 115 local dealers show that appliance business volume in the first six months of this year was \$2,871,084.

"In June, 1946, appliance sales totaled about \$240,000, while the total for the same month this year was \$563,000, an increase of 130%. Refrigerator sales in June, 1946, totaled \$38,662, as compared with \$100,543 in the same month this year. When we compare June sales of this year with those of the same month a year ago, we find that the sale of many major appliances has increased several times. Refrigerator sales are 2.6 times those of a year ago.

"Since refrigerator sales are now only 2.6 times those of a year ago, the indications are that refrigerator sales will continue to increase for many months," Mr. Finley stated. "The determining factor as to how long refrigerator sales will continue to increase, depends upon economic conditions and how fast the manufacturers increase shipments to this section.

"During the fiscal year ended June 30, reports show that 3,673 electric refrigerators were sold here," Mr. Finley added.

Knoxville Sales--

(Concluded from Page 1, Column 3)

Where the average refrigerator customer in 1941 paid \$150 for a 6-cu. ft. model, today's average customer spends \$239 and takes home a 7 or 9-cu. ft. unit.

Dealers in April and May this year sold 542 refrigerators as compared to 1,551 in 1941.

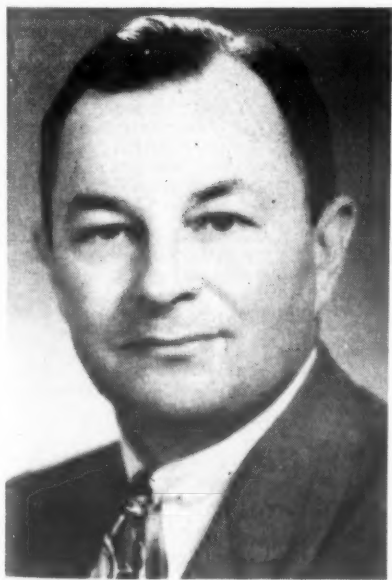
Water heaters are also being purchased in larger sizes, the Board's figures demonstrated. In 1941, about 90% of the heaters sold were of 30 gal. capacity. Today, more than half of water heater sales are in units larger than that.

Water heaters sold, on the average, for \$85 in 1941 and for \$110 this year. Comparative unit sales were 252 and 516.

The average price of electric ranges has risen between the two years from \$150 to \$215, the Board said. In 1941, the dealers sold 651. This year, 368.

Washing machines, however, have moved to the tune of 706 in April and May this year as compared to 650 for the same months in 1941. No further data was given on washer sales by the Board.

In Eastern Territory



HENRY O. NORTON

Norton Named Divisional Sales Mgr. for Bendix

SOUTH BEND, Ind.—Henry O. Norton has been appointed a divisional sales manager for Bendix Home Appliances, Inc., according to W. F. Linville, general sales manager. Headquartering in Philadelphia, Mr. Norton contacts distributors there and in Baltimore, Norfolk, Richmond, and Washington.

A graduate of the University of Pennsylvania school of business administration, Mr. Norton was successively a sales representative of the Semet Solvay Co., salesman and sales manager of the Philadelphia division, Universal C.I.T. Credit Corp., and naval sales representative for E. G. Budd Mfg. Co., Philadelphia.

MANSFIELD, Ohio — Now 90% completed, Westinghouse's expanded electrical appliance department before long may be turning out two refrigerators every 60 seconds.

According to J. H. Ashbaugh, appliance division vice president, the realization of such a production rate is dependent upon how soon Westinghouse can lay its hands on sufficient materials to complete the construction job.

In line with the firm's current \$132 million-dollar program for the expansion and rearrangement of production facilities, an estimated \$14 million has been set aside for the plant here and a companion factory in East Springfield, Mass.

When the lines get rolling here, 4,500,000 parts daily will be fed to assemblers to aid in the output of ranges, washers, refrigerators, irons, roasters, electric comforter thermostats, water heaters, toasters, waffle irons, sandwich grills, heaters, and hot plates.

Distribution of some of these items, however, will still be a problem, Mr. Ashbaugh cautioned. Said he:

"... It will still be necessary to allocate such wanted appliances as ranges, refrigerators, and Laundro-

mats for many months and perhaps through 1948."

The 6,000 workers who will man the expanded plant will utilize some 60 carloads of raw materials daily including 300 tons of steel. They are expected to achieve a production rate of about 90 carloads of appliances each day.

Total floor space of the new plant is 42.7 acres, company officials said.

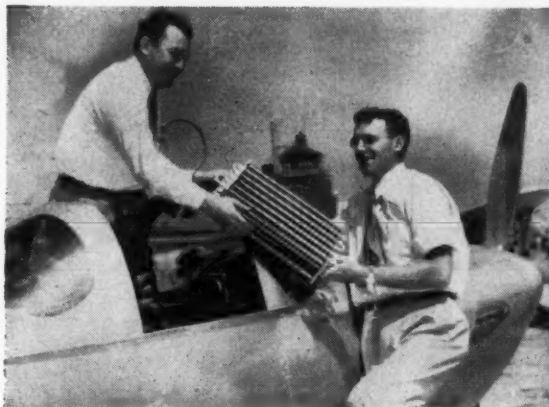
Deepfreeze Appoints Markland Eastern Regional Sales Mgr.

NORTH CHICAGO, Ill.—F. F. Duggan, general sales manager, Deepfreeze Division, Motor Products Corp., has just announced that appointment of Herbert E. Markland to the post of eastern regional sales manager.

For more than 20 years Markland has been affiliated with the major appliance industry, both in manufacturing and distributing capacities. His experience has been extensive in appliance sales and merchandising.

Markland's headquarters are at 500 Fifth Ave., New York City.

Loading Up for a Very Special Delivery



When a rush delivery of six McQuay ripple fin coils was needed recently by a Manitowac, Wis. candy firm, William H. McCullough (left), Chicago representative of McQuay, Inc., and his private two-passenger airplane were called into service. Mr. McCullough flew to the McQuay factory in Minneapolis and is shown here with Ralph Strutzen (right) of McQuay's refrigeration sales department, loading the light weight coils. The delivery was made in time.

Wylie M. Coe To Head Sales Staff of Arnold Wholesale

CLEVELAND—Wylie M. Coe has been named sales manager and Arthur G. Kemp has been appointed to the sales staff of Arnold Wholesale Corp. here, Robert C. Hager, president, has announced. Both men are home appliance specialists, he said.

Mr. Coe, in taking his new position, will relieve Vice President E. C. Forster of his sales responsibilities which he formerly handled with his other activities, Mr. Hager stated.

Mr. Coe has been associated with Arnold for nearly a year doing sales work.

G-E Gives Mrs. Madigan Home Service Supervisory Post

BLOOMFIELD, N. J.—Mrs. Elizabeth Madigan, formerly staff member of the General Electric Consumers Institute, Bridgeport, Conn., has been named home service supervisor for the North Jersey branch of General Electric Appliances, Inc., J. C. Saur, branch manager has announced.

Mrs. Madigan, who has had long experience in modern home-making techniques and research, has lectured extensively throughout the country before women's groups.

THE INDUSTRY'S STANDARD SOURCE-OF-SUPPLY REFERENCE SINCE 1932

ARE YOU ON THE LIST?

The Refrigeration and Air Conditioning Directory is now in preparation.

It will go to 20,000 buyers of refrigeration and air conditioning products.

All manufacturers and the items they supply are listed free of charge.

Questionnaires, product check sheets, and tear sheets have been sent out.

If you make something this industry can sell, be sure to send in the data needed.

It is a big job to check, and cross-check, index and classify all the names.

There are thousands of them to handle, and we need your help to do the job.

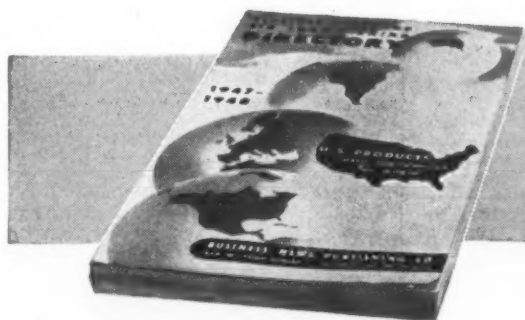
If you haven't received your questionnaire, or tear sheet, write us today.

If you have, complete the record in detail, and do the job carefully.

It doesn't cost you a cent, and your free listing may make a lot of money for you.

20,000 CIRCULATION

PUBLICATION DATE JANUARY 10, 1948



U. S. PRODUCTS EDITION

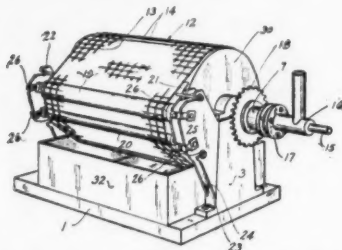
Refrigeration and Air Conditioning Directory

BUSINESS NEWS PUBLISHING CO., 450 W. FORT ST., DETROIT 26, MICH.

PATENTS

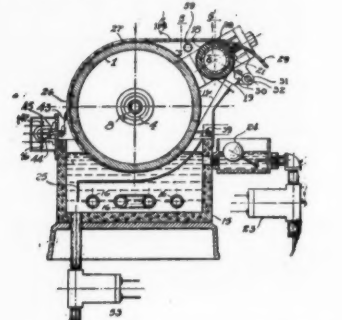
Week of May 6

2,419,953. ICE MACHINE. Frank W. Knowles, Seattle, Wash., assignor to Beltice Corp., a corporation of Washington. Application May 3, 1940, Serial No. 333,135. 7 Claims. (Cl. 62-105.)



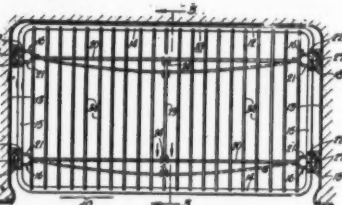
6. A machine for the freezing of ice comprising a rigid, rotatable drum; means for refrigerating said drum; a rotatable mounted roll spaced from the drum; wire belt means applied about the drum and said roll; means for supplying the surface of the drum with a liquid to be frozen thereon; and means for rotating the drum for the removal of the ice therefrom by said wire belt means.

2,419,954. FREEZING MACHINE. Norbert J. Schaal, Riverton Heights, Wash. Application Sept. 19, 1939, Serial No. 295,614. 5 Claims. (Cl. 62-106.)



3. A machine for the production of crystalline laminae of frozen liquid comprising a rigid rotatable refrigeratable drum adapted to contain a refrigerating medium, a plurality of separate unconnected parallel endless single wire belts drawn taut and operating about a portion of the periphery of said drum, means for applying liquid to a portion of the periphery of said drum for freezing thereon over said wires, means for rotating the drum for the progressive freezing of ice about its surface and for the separation of the ice from the surface by the wire belts, and means for the separation of the ice from said wires.

2,420,173. SHELF STRUCTURE. Russell M. Hall, Philadelphia, Pa., assignor to Philco Corp., Philadelphia, Pa., a corporation of Pennsylvania. Application March 24, 1944, Serial No. 527,952. 6 Claims. (Cl. 211-153.)

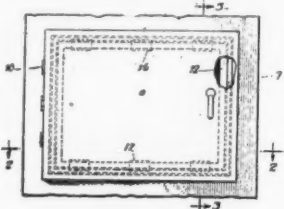


2. In a shelf having marginal edges, suspension means comprising flexible elongated members each provided with end portions mounted on and located respectively at different marginal edges of the shelf, said end portions being movable between projected and retracted positions with relation to the said edges in response to movements of said members, and means interconnecting said members so that the said movements of one are transmitted to the other.

2,420,240. MEANS FOR THE PREVENTION OF FROST ON REFRIGERATOR DOORS. William B. Haggerty, Tampa, Fla. Application March 13, 1945, Serial No. 582,527. 4 Claims. (Cl. 62-89.)

1. A refrigerator of the character described including a low-temperature cabinet having an access opening thereto defining a frame, a door for closing said opening, means for forming a continuous

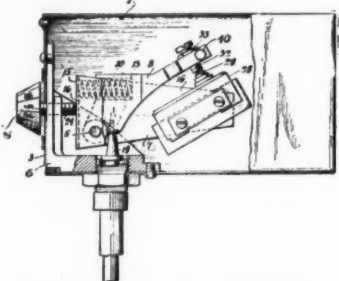
closed air passage between the door and frame when the door is closed, positive means for heating said passage, and



means for connecting the continuous closed air passage with the interior of the cabinet to provide a convection flow air circulation therethrough that prevents the accumulation of frost on the door frame.

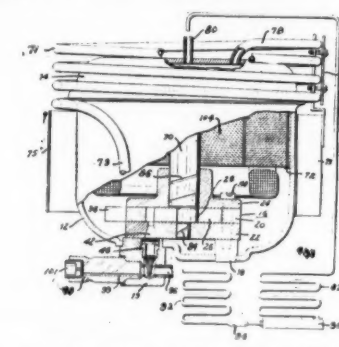
Week of May 13

2,420,352. TEMPERATURE CONTROLLING DEVICE. Herbert S. Burling, South Orange, N. J. Application Nov. 9, 1945, Serial No. 627,566. 3 Claims. (Cl. 200-137.)



1. A mechanism for controlling temperatures in controlled temperature chambers comprising in combination a casing located externally of the chamber, a temperature actuated device mounted in said casing and extending into said chamber, an adjusting screw mounted on said casing, a switch lever and a switch-controlling lever pivotally mounted in said casing on a common pivot, said switch-controlling lever being in engagement with said temperature actuated device, a spring mounted against said switch lever and said switch-controlling lever and tending to move said levers about their pivot in opposite directions to hold said switch lever against said adjusting screw and to hold said switch-controlling lever against said temperature operated device, said spring being inserted in a recess in said switch-controlling lever.

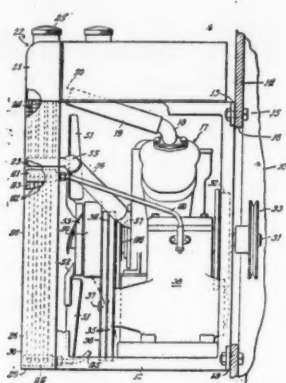
2,420,442. SEALED MOTOR COMPRESSOR UNIT FOR REFRIGERATION APPLIANCE. Francis I. Rataiczak, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application April 28, 1943, Serial No. 494,543. 8 Claims. (Cl. 62-115.)



2. In combination, casing means forming a lubricant separating and storage chamber, a compressor within said chamber, a refrigerant superheat removing coil located outside said chamber, outlet means for said compressor for discharging compressed refrigerant into said superheat removing coil, an outlet from said coil discharging the partially cooled refrigerant into said lubricant separating and storage chamber, and an outlet from said chamber through which the compressed refrigerant is discharged.

2,420,566. ENGINE DRIVEN REFRIGERATION UNIT. Albert W. Scarratt, Kenilworth, Ill., assignor to International Harvester Co., a corporation of New Jersey. Application May 7, 1945, Serial No. 592,338. 4 Claims. (Cl. 62-115.)

1. A refrigeration unit comprising a frame structure, a water-cooled engine and a compressor mounted on said frame structure, drive means between said



engine and said compressor, and a heat radiating structure mounted across the front of the frame structure, said heat radiating structure including a lower section formed as a condenser for refrigerant, fluid conduit means between said condenser and said compressor, and an upper section formed as a radiator for the engine, said radiator being connected to the engine by inlet and outlet conduits.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50 per insertion. Limit 50 words.

RATES for all other classifications \$5.00 per insertion. Limit 50 words.

ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other addresses by actual word count.

POSITIONS WANTED

SERVICE ENGINEER capable of running a service shop or a crew of men in the field. Have serviced and installed all types of commercial equipment as well as "Freon" and ammonia locker plants, ammonia equipment in slaughter houses and quick freezing plants. AL. CLAUSEN, Rte 1, Box 60, Watsonville, California.

REFRIGERATION AND AIR CONDITIONING engineer, 20 years experience designing, erecting, service management and selling, desires position with established firm in southern, central or western states. Straight salary or commission and salary. Present salary \$6,000 per year. Address, ENGINEER, BOX 825, Coccol, Canal Zone.

SERVICE MANAGER—capable organizer and supervisor of service and installation 20 years experience in domestic and commercial refrigeration, heating and air conditioning with dealer and distributor organization. Technical education, extensive field experience with a sound general knowledge of engineering. Excellent references. Southern location preferred. BOX 2439 Air Conditioning & Refrigeration News.

YOUNG EXECUTIVE wants position as store manager for dealer of domestic and commercial refrigeration and air conditioning. Twelve years experience in management, sales, advertising, warehousing, and service. Excellent references. In or near Detroit preferred. BOX 2454, Air Conditioning & Refrigeration News.

MANAGER SERVICE, installation, maintenance engineer. All types, sizes, domestic, commercial, industrial, refrigeration, air conditioning, heating, ventilating, "Freon," Carriene, ammonia, CO₂, etc. Any industrial application: dairy, cold storage, ice, food processing, etc. 20 years experience. Local and foreign technical education. Go most anywhere—United States or foreign. BOX 2462, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

CARRIER DISTRIBUTOR requires the services of a refrigeration sales engineer, capable of handling commercial and industrial refrigeration, air conditioning and low temperature applications. Not essential, but would prefer a man experienced with Carrier equipment. ALLIED REFRIGERATION SALES CORP., 2540 Prospect Avenue, Cleveland, Ohio.

FIRST CLASS mechanic with at least seven years of experience in all types of commercial refrigeration wanted by large corporation at Pensacola, Florida. Reference required. Apply CAPADUCA STORE FIXTURES, P.O. Box 921, 500-506 S. Palafox St., Pensacola, Florida.

SALES MANAGER—State of Maine distributor for leading lines of commercial refrigeration, selling through approximately seventy-five dealers, has attractive opening for experienced Sales Manager with technical refrigeration background. Car essential. Must be good closer. MAINE INDUSTRIES COMPANY, 40 Columbia Street, Bangor, Maine.

REFRIGERATION APPLICATION—Sales Engineer—Position with fast growing refrigeration and air conditioning equipment manufacturer. 5 to 50-H.P. condensing units. Unusual opportunity for man with refrigeration sales experience and training, between ages of 28 and 35. Give full details, salary desired, etc. SALES MANAGER, 1016 E. Columbia, Evansville, Indiana.

WANTED: EXPERIENCED salesmen to represent large manufacturer in commercial refrigeration and air conditioning field, headquartered in Kansas City, Missouri, St. Louis, Missouri, and Dallas, Texas. Salary, expenses, and incentive basis. Give full particulars when answering. BOX 2417 Air Conditioning & Refrigeration News.

EXCELLENT OPPORTUNITY for the right man. An air conditioning firm, distributors to dealers in Illinois, Indiana, Ohio and Michigan, has positions for two air conditioning sales engineers. Must be able to figure, bid and sell air conditioning jobs. Salary and commission. Give full particulars in answering. BOX 2443 Air Conditioning & Refrigeration News.

WANTED: SALESMEN calling on refrigeration service shops can add substantially

Cooling Sales Augment Vet's Sheet Metal Work

ORLANDO, Fla.—Since V. K. Magarian, Navy veteran, decided to expand his business from strictly plating and metal work to installation of refrigeration and air conditioning systems a few months ago, he has made several important installations, it was reported here.

He has put air conditioning in the Van Croix motion picture theater in Melbourne; air conditioning and heating equipment in the West Orange Memorial Hospital, the Forest Lake Academy, and Florida Sanitarium; and a refrigeration plant in the Polk Packing Co., new citrus concentrate plant.

The Magarian Art Metal Works turns out delicatessen and barbecue equipment, drain boards, and sinks.

motor cannot burn out. (Glass insulated wire coils.) MODERN SUPPLY CO., 206 Fulton St., New York 7—CO 7-0100.

FREEZER PLATES 18" x 72" Peerless \$11.00 each, 12" x 72" Peerless \$8.50 each, 3 HP Curtis Water Cooled Units, complete \$375.00 each. 1 HP Diceler Air Cooled Units, complete \$198.00 each. RICHMOND REFRIGERATION SERVICE, INC., 765 Post Avenue, Staten Island 10, New York.

FLOAT REPLACEMENTS. For replacing defective high side floats on all household units. Regular charging connection, capillary tube setup, internal strainer and exact mounting plate. Part #2000—Westinghouse (4 hole plate), and #2010 (3 hole plate); Part #2020—Gibson Part #2030—General Electric (DR-1 & DR-2). Part #2040—For general replacement (undrilled plate). \$6.75 each. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56.

SEALED CROSLLEY TERMINALS. Installed from the outside in a few minutes without opening the compressor. Corrodes leaky terminals on all Crosley "F 12" units. Set of three \$5.25 (Part No. 1020). Installation tool \$2.00. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

HOME FREEZERS—12 cu. ft.—Nationally advertised brand, less refrigerating unit—\$165.00. 1/4 HP. AC refrigerating unit—\$62.50—priced to sell with cabinet. All prices net—FOB Kansas City, Missouri. 10% with order—Balance s/d/b/l. WESTPORT REFRIGERATION COMPANY, 2605 Ban Brunt, Kansas City, Missouri.

1/4 HP UNITS complete with motor. \$98.50. Other models from 1/4 HP to 1 HP at new low prices. All units supplied with motors. Send for catalog 742A. BOX 2405 Air Conditioning & Refrigeration News.

IMMEDIATE DELIVERY: New Gemco or Typhoon 5-ton air-conditioning unit \$11.00 each, 12" x 72" Peerless \$8.50 each, 6-hole ice cream cabinets \$135; Bev-food 14 cu. ft. refrigerator-beverage cooler \$200 less unit; reach-in refrigerators, freezers, display cases. BOX 2433 Air Conditioning & Refrigeration News.

SURPLUS STOCK—display & closed top low temperature cabinets. Standard manufacture—sizes 4.5 to 21 cu. ft. Stainless steel delicatessen & dairy cases. Complete with coils—sizes 6'-8'-10'-12' lengths. Beverage coolers—with or without units. Prices below cost. Reply BOX 2445 Air Conditioning & Refrigeration News.

WORTHINGTON STORE Coolers: In stock, package air conditioners manufactured by Worthington Pump & Machinery Corporation, complete with discharge plenums, new, never uncrated, 3-ton \$750.00, 5-ton \$995.00 FOB our warehouse. We have only a few of each size; so hurry. BOX 2450 Air Conditioning & Refrigeration News.

ICE CREAM CABINETS, remote, flip lids, stainless steel tops, Miller & Ferrato makes, priced for speedy liquidation—14-6 hole \$95.00 each; 5-8 hole, \$130.00; 2-10 hole, \$160.00. Also 240 gallon Super-cold Ice Cream Hardening Cabinet complete with condensing unit, crated \$1056.00. BOX 2455, Air Conditioning & Refrigeration News.

FRANCHISES WANTED

RESPONSIBLE, SPANISH, young refrigeration salesman leaving for Havana August 30. Interested in selling your line on commission. No product too big or too small. Write to me with full particulars and samples if available. ALFRED GARRIDO, 954 Roger's Place, Bronx 59, New York.

MANUFACTURERS REPRESENTATIVE organization selling to dealers and chains only, are seeking quality line of commercial refrigerator equipment for Eastern territory. Primarily interested in refrigerator cases, coolers, fountain equipment, etc. Product must bear thorough quality inspection, for consideration. All correspondence confidential. REFRIGERATED EQUIPMENT SALES, 85 Liberty St., New York, N. Y.

ATTENTION MANUFACTURERS—let us represent you in the Carolina's, Georgia, Florida. We are well acquainted with all jobbers, distributors, and dealers in area. Three high type, capable salesmen will represent you. References furnished. We invite your questionnaire or personal visit. S & K COMPANY, Manufacturers Agents, 1323 Lady Street, Columbia, South Carolina.

WE ARE interested in buying commercial refrigeration service contracts in Brooklyn, New York territory. Will pay high prices. If you have ten accounts or more to sell, please write to BOX 2457, Air Conditioning & Refrigeration News.

FRANCHISES AVAILABLE

WE HAVE a few dealer franchise locations available for the fastest moving line of water air conditioning. Limited quantities on immediate delivery. Don't miss this opportunity. TEMP-CONTROL, INC., 208-210 E. State St., Peoria 2, Illinois.

A FEW dealerships available. Warren controlled quality commercial refrigerators. Display cases, beverage coolers, walk-in refrigerators, reach-in refrigerators, open-type refrigerated cases, and other commercial items. Write factory. THE WARREN COMPANY, INC., P.O. Box 1436, Atlanta 1, Georgia.

BUSINESS OPPORTUNITIES

PAY CASH for commercial refrigeration or air conditioning sales or service business in New York Metropolitan area. Full details in first letter. BOX RC 1247, 113 W. 42 St., New York 18.

REFRIGERATION Sales and service and motor business for sale, established 15 years, capable of supplying 2 and 3 partners, completely equipped machine shop, complete stock of parts and supplies located in progressive city in Mid-Hudson Valley, for further information BOX 2453 Air Conditioning & Refrigeration News.

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Receive the greatest trade paper in the Industry—AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on household refrigeration, commercial refrigeration, air conditioning, home freezers; manufacturing, distributing, retailing, servicing, and contracting. Only \$4 per year, 52 issues.

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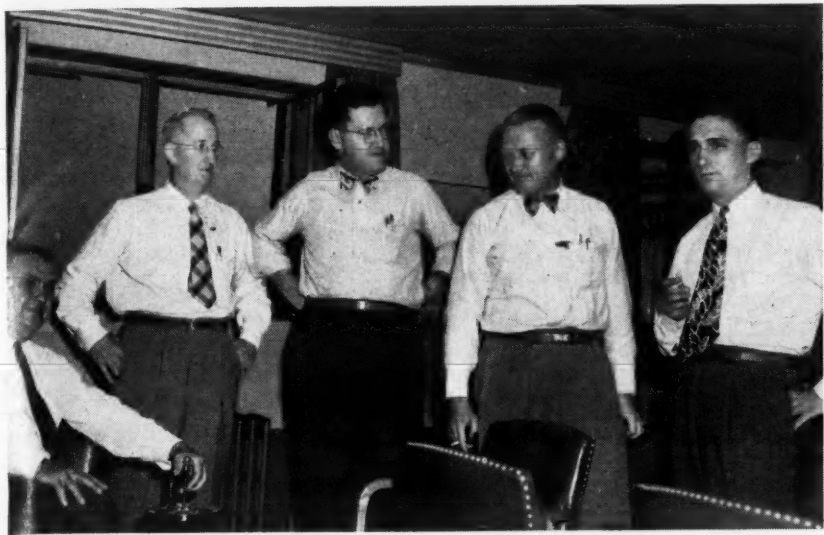
Company.....

Street.....

City.....Zone.....State.....

8/18/47

Wholesalers Give Each Other the 'Once-over' As REWA's Region 5 Holds Meeting In Detroit



(Photo by Austin Jones, Kerotest Co.)
J. M. Oberc (left) and his right-hand man E. A. Germain (right) seem unconcerned over the questioning glances of parts wholesalers Ed Lee, Ned Mason, and H. Whiting Holt between sessions at the recent meeting of REWA's Region 5 in Detroit.

DETROIT—N. K. "Ned" Mason of Mason Supply Co., Columbus, Ohio, was elected chairman of Region 5, Refrigeration Equipment Wholesalers Association, when the group held a recent one-day meeting at the Fort Shelby hotel here.

E. H. Davy, manager of Lee Equipment Co., Detroit, was re-elected secretary-treasurer during the session, which was conducted by H. Whiting Holt, regional director and head of Orr, Inc., Pittsburgh.

G. J. Roche, national president, and

H. S. McCloud, executive secretary, discussed current problems before the group, which comprises R.E.W.A. members in western New York and Pennsylvania, Ohio, Indiana, West Virginia, Kentucky, and Michigan.

The new 64-page International Directory of the association was also presented to members. Besides listing all the members alphabetically and geographically, the booklet briefly outlines the history and policy of the organization, which, it notes, has grown to 171 wholesalers.

Cheaper, Faster Automatic Washers Could Capture 60% of Sales, Dealers & Distributors Tell Conlon

CHICAGO—Price the automatic home laundry at about \$150, improve its ability to clean clothes, shorten the cycle of operation, lower the cost of installation and service and this appliance will run off with from 20% to 60% of the washing machine market.

That in substance is what competitive manufacturers, and the distributors and dealers of the Conlon division (household washers and ironers), Conlon-Moore Corp., indicated in a survey conducted by I. N. Merritt, vice president and general manager of the corporation.

Mr. Merritt had asked them:

Does the consumer want an automatic washer?

Will she buy one? At what price?

What have been the results of those sold?

What are the facts, statements, and reactions of owners?

Results of the survey further indicated that the consumer definitely wants an automatic washer and will buy one if the price can meet her budget. "Amazing percentages" of automatic washer users have reported good results from their machines and are satisfied with them.

However, the following complaints have been heard:

Hot water capacities on the average farm will not meet the requirements of cycle washing.

Owners are unwilling to make the necessary plumbing changes to have the units installed.

They don't want to have the unit bolted down.

The automatic washer cannot take the abuse and misuse that a conventional unit can and still turn out clean clothes.

Clothes come out of the wash with that "tattle tale gray."

While some answers considered the market for a right priced machine as high as 60% of the total washer market, others estimated that 20% would be an optimistic figure, once "the cream was skimmed off." The average estimate put the automatic's share at 35 to 40%.

Replies from various parts of the country showed that the reception given automatics is by no means uniform from coast to coast.

A Los Angeles distributor said that his washer sales have been running three automatics to every conventional unit sold.

On the other hand, a Conlon distributor in northeastern Pennsylvania declared that "dealers are not interested in buying automatics from anyone at this time."

Other replies from the East and Florida seemed to bear out this sentiment. These representatives were putting their chips on the conventional type, wringer equipped washer to be "Mr. Big in the industry for years to come."

One eastern participant in the poll viewed the situation this way:

"Automatics today have a great deal of acceptance because the consumer is automatic minded. But unless any washing machine manufacturer is willing to spend a terrific amount of money in consumer advertising, a minimum of \$25 per washer, or if the manufacturer is capable of putting out an automatic to retail for \$100 with a good markup for the dealer, I personally do not believe the manufacturer could get back his investment in dies and jigs."

A noted washer engineer, however, opined that "the press-a-button-and-the-washer-does-all-the-work idea has proven to be the most powerful sales appeal we have ever had in the washer business."

Bendix to Celebrate 10th Anniversary

SOUTH BEND, Ind.—A four-day convention of distributors for Bendix Home Appliances, Inc., will be held here Aug. 21 to 24, to celebrate the tenth anniversary of the first Bendix automatic washing machine and to present company plans for advertising, selling, and promoting the washer during the remainder of the year, Judson S. Sayre, president, has announced.

Approximately 500 persons, including top executives from 83 distributorships in the United States, Canada, Mexico, and the Hawaiian Islands are expected to attend, according to Mr. Sayre.

At the opening session, Mr. Sayre will disclose the company's plans for maintaining a high production and formally announce the completion of the 1,000,000th Bendix automatic washer.

W. F. Linville, general sales manager, will greet the distributors and Stewart Roberts, director of advertising, will present the company's advertising and promotion plans.

As a prelude to the convention, Bendix sales department managers, regional and divisional sales representatives, and service supervisors, started a five-day, mid-year sales conference last Saturday.

Starting today, Aug. 18, four training teams are being schooled to train distributors' Bendix wholesale men on the third and fourth days of the distributors' convention, Mr. Sayre said.

Team captains are N. D. Craighead, Grant Layng, A. C. Olander, and M. R. Rodger.

Contractors In Detroit Plan Picnic Aug 24

DETROIT—An old fashioned basket picnic will be sponsored by the Refrigeration Contractors Association of Detroit, Sunday, Aug. 24 at Graham Farm, 24325 Graham Rd., near Telegraph and Five Mile roads, Frederick R. Bolton, executive secretary, has announced.

Open to the industry, particularly local contractors and their families, together with their employees and their families, the picnic will feature athletic events and free drinks, refreshments, and prizes, Mr. Bolton declared. Each family will have to bring its own lunch.

The picnic was arranged by a committee headed by Chris Milazzo, chairman, and George Murphree, vice chairman.

Col. Ross Named Manager Of Laundromat Distributor

MANSFIELD, Ohio—Appointment of Col. F. E. (Ed) Ross as general manager of ALD, Inc., commercial distributor of Westinghouse laundry equipment, has been announced by L. Lloyd Strite, president.

Col. Ross was formerly manager of laundry equipment and household refrigeration advertising and sales promotion for the Westinghouse Electric Appliance Division, and had served five and a half years in the Army.

Mr. Strite said that the new general manager would direct the activities of his company, formerly known as Automatic Laundry Distributor, Inc., on a national basis. ALD, Inc., licenses and operates self-service, Laundromat-equipped "Half-Hour Laundries" throughout the country.

'Down-to-Earth' Approach on Air Conditioning



Edward Garfield, vice president of Ice Air Conditioning Co., Brooklyn, shakes hands with Lou B. Rose of Bon-Ton Dept. Store, Greensburgh, Pa. after closing an order for Typhoon self-contained units to air condition all five floors of the store. H. G. Ratner of Commercial Appliance Co., local distributor, is the onlooker.

Planned Lighting Campaign for Stores Prepared For Utility Use by Edison Electric Institute

NEW YORK CITY—A planned lighting program for stores, first of five major projects in the planned lighting program now being offered to the electrical industry by the Edison Electric Institute, is being distributed to utility commercial executives, according to Ralph P. Wagner, Commercial Division chairman of EEI.

Four other campaigns, on residential, industrial, school, and office lighting, will be released within the near future, he said.

"Through aggressive promotion of planned lighting, which consists basically of simply showing customers the reasons why their lighting should be planned by an expert before they invest money in fixtures, the utility company has a rare opportunity to help retail merchants," Mr. Wagner declared. "The materials supplied in this program are designed to show the retailer how better light can be used to stop passers-by, and bring more of them into the store. Each promotional aid shows how better light helps to make more sales and profit per square foot of space, through revealing the true quality of merchandise, stimulating impulse sales and reducing the number of returns."

The store lighting campaign consists of a plan book, which outlines suggested methods for successful selling in this field, market data, advertising plans, advice on sales training and organization, and other information, Mr. Wagner said. A series

of 12 mailing pieces, for a complete year's campaign; an attractive consumer booklet, for distribution by lighting salesmen; a forceful sales visualizer, which packs the profit possibilities of planned store lighting into a hard-hitting 10 minute presentation; and a recommended lighting layout and recommendation form, complete the list of material for the program.

Knobloch Joins Jack & Heintz As Bearing Division Head

CLEVELAND—Jack F. Knobloch, general superintendent of the Weatherhead Co. since 1941, has joined the production staff of Jack & Heintz Precision Industries, Inc., here, as superintendent of the ball bearing division, Reber C. Stupp, vice president and production manager, has announced.

Prior to his association with Weatherhead, Mr. Knobloch had worked extensively with Diesel engines, Mr. Stupp said. During his 17 years with the Ingersoll-Rand Co., he pioneered the introduction of Diesel powered equipment in railroads and industry.

As superintendent of steam turbine and Diesel engine production at Ingersoll-Rand, Mr. Knobloch developed the first successful high speed Diesel engine and the first successful Diesel-powered electric locomotive, it was said.

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WITH THE *New* **Filterpure** CEILING UNIT

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More Ranco Controls in Use	Greater Customer Satisfaction
Dependability	More Profit For You



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As a refrigeration service man, you'll find more Ranco Controls on original refrigeration equipment. That's because Ranco Refrigeration Controls provide dependable, satisfactory performance. Your choice of Ranco Controls will make your job easier, and more profitable.

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Ranco Inc.
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World's Largest Manufacturers of REFRIGERATION CONTROLS

CRMA Meeting--

(Concluded from Page 1, Column 5)
war was stressed, with the recent boost in steel prices being cited as an example.

The group was asked to note that wages have gone up more than 90% over the 1940-41 level but that prices of manufactured goods have increased only about 25%. This was attributed to such offsetting methods as increased labor efficiency, modernization, and new machinery, as well as enlarged volume of demand.

Since people today are more refrigeration conscious than ever, the industry need have no fear that as "normalcy" approaches it will return to the prewar yearly volume of \$18,000,000, President John D. Harris told the manufacturers. Instead, he declared, volume can conceivably reach the \$100,000,000 mark as new uses and applications are found for refrigeration.

Mr. Harris, the Warren Co., was reelected president of the association; J. J. Leonard, Seeger Refrigerator Co., was reelected vice president; and A. J. Johnson, Puffer-Hubbard Mfg. Co., was reelected treasurer. William McCall, McCall Refrigerator Corp., and Edward N. Northey, Herrick Refrigerator Co., were named as new members of the executive committee.

Talks with Union--

(Concluded from Page 1, Column 4)
what the major differences were with the union. Up to now, there was no sign that the discussions had bogged down.

The last official announcement regarding negotiations was made following the meeting held in St. Louis last February to lay a foundation for the labor agreement. At that time, NARC said only:

"Progress was made and a wealth of material developed. This will receive further study by NARC as a basis for future discussions."

At the same time, the contractors revealed a nine-point program which was guiding them in negotiations. Among other things, this program called for recognition of refrigeration contracting as a separate craft, a sound apprenticeship program designed specifically for refrigeration training, a model labor agreement, recognition that one wage cannot apply throughout the industry, and recognition that in some instances jurisdiction on modern refrigeration equipment is questionable.

Remco Will Shift Into New Plant

ZELIENOPLE, Pa. — Expanding operations have forced Remco, Inc., of Pittsburgh, to shift its manufacturing facilities and offices into larger quarters provided in the new Halstead and Mitchell plant here, effective Sept. 1, announces K. M. Newcum, Remco president.

Remco manufactures heavy-duty "Cross-Flo" drier-filters and filters, standard duty driers and filters, and "Liquid-Fin" heat exchangers.

Maytag Volume Double '46

NEWTON, Iowa — Dollar volume of sales made during the first half of 1947 by the Maytag Co. here exceeded \$25,000,000, more than double the sales volume for the same period last year, according to Fred Maytag II, president.

Unit sales and production were setting new records, too, he stated.

Most of the sales were new washers, though washer repair parts, home freezers, gas ranges, and ironers swelled the total, he indicated.

Helliwell Forms New Firm

SAN ANTONIO, Tex. — H. J. (Jack) Helliwell, who founded the Standard Distributing Co. here four years ago, has announced the formation of a new distributing firm featuring electrical appliances and houseware lines.

The new firm, to be known as the Jack Helliwell Co., is located at 2805 S. Flores St. here.

Mr. Helliwell said that he was formerly associated with Atwater Kent, Gibson Refrigerators, and Farnsworth Radio & Television Co.

Department Store Sales Continued at High July Level In First Aug. Week

WASHINGTON, D. C.—Although declines were noted in some districts, sales by leading department stores during the week ended Aug. 2 were 1% above those for the corresponding period of last year, according to the Federal Reserve Board.

At the same time, the Federal Reserve Bank of New York reported that sales of department stores in New York City for the same period dropped 5% compared with the like week of 1946. Specialty stores sales declined 12%.

Reporting on department store sales for July, the FRB said they declined seasonally from June but rose 6% above those for July, 1946. The month's sales index, after seasonal adjustment, was announced as

290% of the 1935-39 average, compared with 289 for June, 291 for May, and 273 for July a year ago.

Sales for the week of Aug. 2 by Federal Reserve Districts and compared with a year ago were: Boston, up 1%; New York, off 3%; Philadelphia, off 2%; Cleveland, up 2%; Richmond, off 5%; Atlanta, off 6%; Chicago, up 2%; St. Louis, no change; Kansas City, off 2%; Dallas, up 1%; San Francisco, up 3%.

Thor Makes \$1,600,000

CHICAGO — Net profit of Thor Corp. for the first six months of the year amounted to \$1,600,000.

SCHILLER PARK, Ill.—A cooling room price list, complete with data on figuring the square footage of such rooms, has been released recently by Albert H. Bromann, Jr., manufacturer of custom built cooling rooms and cabinets for both commercial and industrial type freezers.

The Bromann product is constructed in sections so that it can be built to any specifications and so that it can be disassembled and moved if need be, Mr. Bromann pointed out.

The price list quotes prices on both standard cooling rooms and on basement cooling rooms. Extra equipment and extra walk-in door hardware are also priced. Specifications of the product are listed and

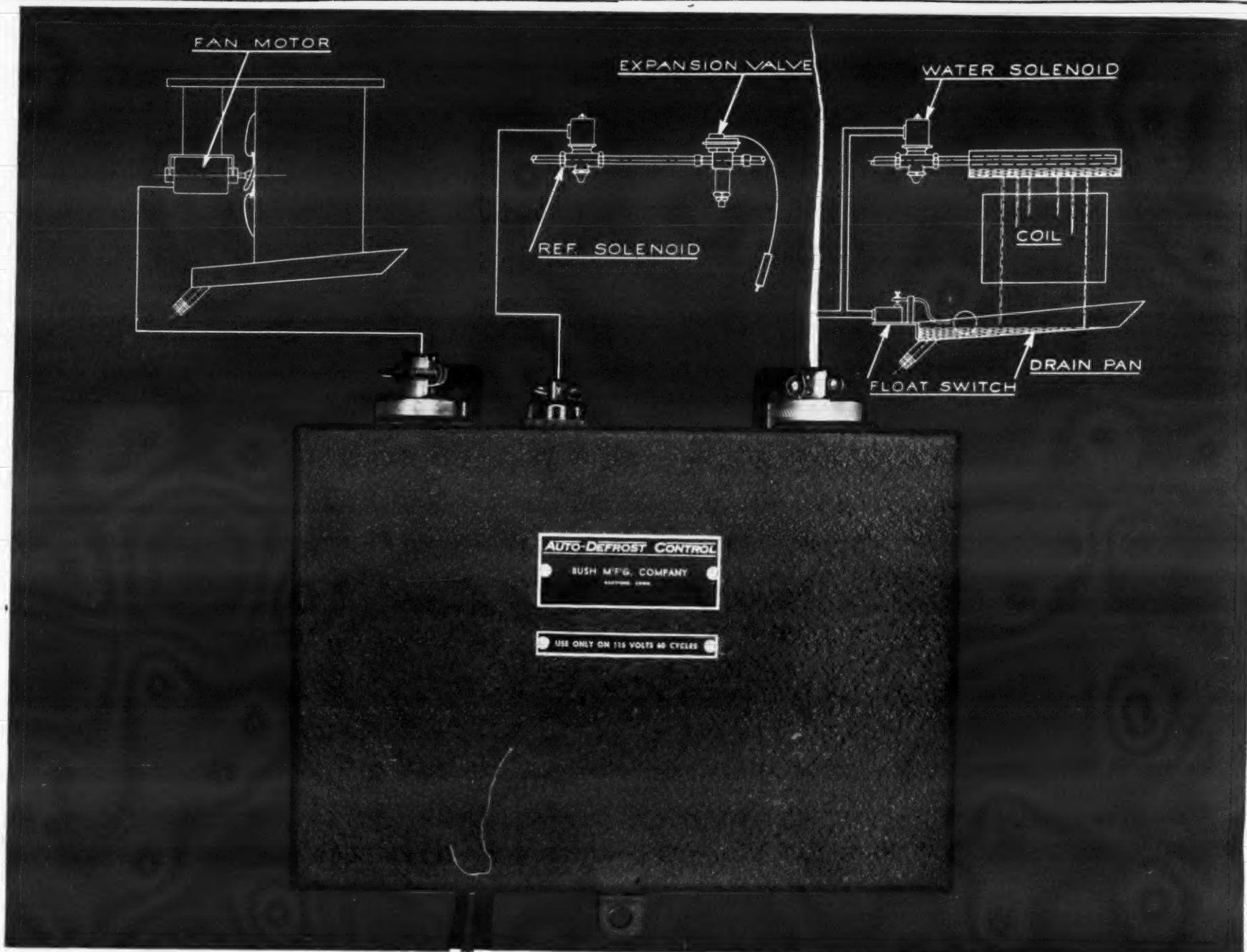
instructions on figuring the job are outlined.

The folder further contains information required to build a cooler and a chart giving the square footage of rooms from 6 ft. by 6 ft. by 6 ft. to rooms 20 ft. by 17 ft. by 9 ft.

Bromann cold storage rooms are shipped knocked-down in sections ready for quick assembly by merely inserting and tightening necessary lag bolts, Mr. Bromann explained.

Delivery within 10 to 14 days after receipt of detailed specifications is promised.

All prices are quoted f.o.b. Schiller Park and are subject to a 50% discount, he said. They do not include any taxes and are subject to change without notice.



THERE'S A BIG DEMAND FOR AUTOMATIC DEFROSTING

...and Bush can provide it now

BUSH

OUR FORTIETH YEAR

Your customers will want the Bush Auto Defrost for, once installed, the Auto Defrost operates entirely without supervision... completely defrosting coils when it is necessary.

This revolutionary device is controlled by an electronic circuit, connected in series with the fan motor. When ice causes the fan to draw more current... as little as 5%... this circuit trips a relay which cuts out the fan motor, starts a timing mechanism, opens a water valve.

Six minutes later, the coil is defrosted. The water then shuts off, a four minute drainage period is allowed, and then the fan is restarted. One Bush Auto Defrost can handle several coolers by means of a simple relay circuit.

See your Bush factory representative about including Auto Defrosts on your next job.

Bush products are sold by leading refrigeration wholesalers everywhere

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